

reducing administrative burdens facilitates delivery of service.<sup>68</sup> The CSC, however, while supporting consolidation, suggests that we should distinguish DBS rules from other satellite service rules, where appropriate.<sup>69</sup>

16. We will adopt our proposal to consolidate Part 100 with Part 25. This action should eliminate inconsistencies in the Commission's rules governing satellites, reduce confusion and uncertainty for DBS and DTH applicants, and lessen regulatory burdens. We will, as explained below, however, retain some DBS specific rules that reflect distinctions between DBS and other satellite services. We preserve certain specific Part 100 rules (*i.e.* license terms, due diligence and geographic service requirements, competitive bidding, and technical requirements) in Part 25 because DBS is a unique satellite service in some respects.<sup>70</sup> Therefore, we add a new section to Part 25 entitled, "Licensing Provisions for the Direct Broadcast Satellite Service."<sup>71</sup> This new Section 25.148, preserves certain Part 100 rules that apply only to the DBS service and that are not covered under existing Part 25 rules. We also move other Part 100 rules to Part 25, including a rule setting forth the definition of DBS and other rules addressing the technical requirements of the DBS service. The following chart identifies each former Part 100 rule and indicates the specific rule changes that we adopt today.

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<sup>68</sup> Reply Comments of Tempo at 5.

<sup>69</sup> Reply Comments of CSC at 1.

<sup>70</sup> These DBS-specific rules include definitions (Section 100.3), license term (Section 100.17), due diligence requirements (Section 100.19), technical requirements (Section 100.21), and geographic service requirements (Section 100.53).

<sup>71</sup> See new § 25.148.

## Incorporating DBS Service Rules into Part 25

Part 100 Section	Commission Action	Existing Part 25 Section
Section 100.1 (Basis and purpose)	eliminate	covered by Section 303(v) of the Communications Act
Section 100.3 (Definitions)	amend and move	Section 25.201
Section 100.5 (Public Interest Obligations)	amend and move	new Subpart J-Public Interest Obligations new Section 25.701, <i>et seq.</i>
Section 100.11 (Eligibility)	eliminate	covered by Section 310(b) of the Communications Act
Section 100.13 (Application)	eliminate	covered by Part 25, Subpart B-Applications and Licenses
Section 100.15 (Licensing)	eliminate	covered by Part 25, Subpart B-Applications and Licenses
Section 100.17 (License term)	amend and move	new Section 25.148(a)
Section 100.19 (Due diligence)	move	new Section 25.148(b)
Section 100.21 (Technical)	amend and move	new Section 25.148(f) and Section 25.215
Section 100.51 (EEO)	move	new Section 25.601
100.53 (Geographic service)	amend and move	new Section 25.148(c)
100.71 (Competitive bidding)	move	new Section 25.148(d)
100.77 (Long-form applications)	amend and move	new Section 25.148(e)
Sections 100.72-.76, 100.78-100.79 (Competitive bidding system design)	Eliminated in WTB Order ( <i>see infra.</i> )	covered by auction rules in Section 1.2101, <i>et. seq.</i>
Section 100.80 (Transfers)	eliminate	covered by Sections 1.2111 and 25.119
Part 25 Cross-reference to Part 100 for DBS	eliminate	eliminate Section 25.109(b)(DBS cross-reference)

17. *Basis and purpose § 100.1.* Section 303(v) of the Communications Act gives the Commission exclusive jurisdiction over the regulation of DTH satellite services, including DBS.<sup>72</sup> Therefore, the *Notice* proposed to eliminate Section 100.1 of the Commission's rules, which simply recites this statutory authority. We received no comment on this issue and we hereby eliminate Section 100.1 of the Commission's rules because it is unnecessary.

18. *Definitions § 100.3.* In the *Notice*, the Commission proposed to move the definition of DBS service, which is identical to the definition of BSS in the ITU Radio Regulations, from Section 100.3 of its rules to a new rule section in Part 25, Section 25.201. and to add reference to the specific frequency bands used by the DBS service, in order to distinguish the DBS-specific rules from the rules for other satellite services in Part 25.<sup>73</sup> The ITU defines the broadcasting-satellite service as a "radiocommunication service in which signals transmitted or retransmitted by space stations are intended for direct reception by the general public."<sup>74</sup> This definition is the same as the definition of DBS service found in Part 100.<sup>75</sup>

19. The CSC and Primestar take opposing views on whether to amend the definition of DBS. The CSC argues that the Commission should adopt the ITU's definition of DBS, based on the type of service provided, and not by the frequencies used. It argues that a functional definition would promote competition, spectrum efficiency, and would be a consistent application of U.S. policy.<sup>76</sup> By contrast, Primestar states that the definition of DBS should reference the specific frequencies used by the DBS service.<sup>77</sup> PanAmSat suggests that the Commission define the DBS service in terms of territory served.<sup>78</sup> PanAmSat asks the Commission to clarify that certain of its DBS rules do not apply to entities serving territories solely outside of the United States. PanAmSat asserts that while many DBS rules are appropriately applied across services, others will impose unnecessary regulatory burdens on, and make no sense when applied to, Region 2 BSS systems that do not provide service to the United States, and do not operate from a U.S. DBS orbit location.

20. In *DISCO I*, the Order that revised the policies governing U.S.-licensed satellites, the Commission stated that DBS licensees could use their satellites to provide both domestic and international service without additional approval from the Commission.<sup>79</sup> In that Order, the Commission

<sup>72</sup> See 47 U.S.C. § 303(v), which states that the Commission has exclusive jurisdiction to regulate the provision of direct-to-home satellite services. The term "direct-to-home satellite services" is defined as the distribution or broadcasting of programming or services by satellite directly to the subscriber's premises without the use of ground receiving or distribution equipment, except at the subscriber's premises or in the uplink process to the satellite.

<sup>73</sup> See *Notice* at ¶ 19 citing § 25.201.

<sup>74</sup> ITU Radio Regulations, Volume 1, Ch. 1, Article 1, 1.39

<sup>75</sup> See 47 C.F.R. § 100.13.

<sup>76</sup> Comments of CSC at 3; Reply Comments of CSC at 2.

<sup>77</sup> Comments of Primestar at 23.

<sup>78</sup> See Comments of PanAmSat at 3.

<sup>79</sup> See *Amendment to the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite Systems*, Report and Order, 11 FCC Rcd 2429 (1996) ("*DISCO I*") at ¶ 70 (foreign approval required for international operations, consistent with international treatise).

stated that prior to commencing service, licensees must ensure that (a) the technical and operational parameters of the channels have been successfully coordinated, consistent with U.S. treaty requirements; and (b) they comply with the Commission's service rules for DBS channels assigned for U.S. domestic use.<sup>80</sup> As is the case for other satellite services, U.S. service rules do not apply to service provided by U.S. DBS satellites to other countries. Rather, those services are subject to the rules and policies of the country in which the service is being provided. DBS licensees would be subject to the rules of the country served. Accordingly, we see no reason to modify the definition of DBS as PanAmSat suggests.

21. We will adopt the definition of DBS service proposed in the *Notice*, which references the specific frequencies used and which will continue to distinguish DBS from DTH and other satellite services.<sup>81</sup> This is consistent with the way the Commission defines other satellite services in Part 25.<sup>82</sup> The Commission specifically created an allocation for DBS at 12.2-12.7 GHz and contemplated that it would be used primarily for direct-to-home video programming.<sup>83</sup> In addition, the ITU reached agreement on assigning BSS spectrum at specific orbital locations to administrations throughout the world.<sup>84</sup> Use of these locations is governed by specific procedures contained in the ITU BSS and feeder-link Plans, and these procedures apply specifically to BSS in the 12 GHz frequency band and to a BSS system's associated feeder links. Consequently, our DBS service rules are frequency-specific and therefore we will include the frequencies in the definition of DBS. On the other hand, FSS frequencies are not subject to the BSS and feeder-link Plans of Appendices 30 and 30A, and can be used for a variety of different services, including DTH. We believe that defining DBS based on both the frequencies and the nature of the service will avoid confusion because there are significant instances where DBS is subject to international regulations different from those applied to the FSS. Therefore, we amend the definition of DBS to include a reference to the frequencies used by the DBS service.<sup>85</sup>

22. *Public Interest Obligation § 100.5.* In 1998, pursuant to the Cable Act of 1992, the Commission adopted public interest obligations for DBS providers. These rules require providers to set aside four percent of their channel capacity for noncommercial programming of an educational or informational nature.<sup>86</sup> The rules also require compliance with the existing political broadcasting

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<sup>80</sup> *Id.*

<sup>81</sup> *Notice* at ¶ 19. Specifically, we revise Section 25.201 to add the DBS definition we adopt here.

<sup>82</sup> For example, in Part 25, the Commission defines other satellite services separately, such as the service rules for the non-voice, non-geostationary mobile-satellite service ("Little LEOs"), 47 C.F.R. § 25.142, and the fixed-satellite service in the 20/30 GHz bands ("Ka-band"), 47 C.F.R. § 25.145.

<sup>83</sup> See 1982 DBS Order at 680. See also DBS Ancillary Uses PN, which requests comment on non-conforming uses of DBS spectrum.

<sup>84</sup> *Notice* at ¶ 6.

<sup>85</sup> We will modify our definition to include those frequencies.

<sup>86</sup> On November 19, 1998, the Commission adopted rules implementing Section 25 of the 1992 Cable Act, which requires that DBS providers must reserve four percent of their channel capacity exclusively for use by qualified programmers for noncommercial programming of an educational or informational nature. Channel capacity is determined annually by calculating the average number of channels available for video programming on all satellites licensed to the provider during the previous year. See *Implementation of Section 25 of the Cable Television Consumer Protection and Competition Act of 1992, Direct Broadcast Satellite Public Interest Obligations*, Report and Order, 13 FCC Rcd 23254 (1998) ("DBS Public Interest Order").

requirements in Sections 312 and 315 of the Communications Act.<sup>87</sup>

23. The term "DBS provider" includes entities licensed pursuant to Part 100 of the Commission's rules, entities licensed pursuant to Part 25 of the rules to provide direct-to-home fixed satellite service ("DTH-FSS") in the Ku-band, and non-U.S. licensed satellites providing DBS or DTH-FSS services in the United States.<sup>88</sup> EchoStar currently offers 19 qualifying channels of public interest programming<sup>89</sup> and DIRECTV carries nine qualifying noncommercial networks under these rules.<sup>90</sup>

24. Because the public interest obligations were not adopted at the time the *Part 100 Notice* was released, we made no proposals with respect to the rule. As is the case for all Part 100 rules that we are not eliminating, however, we will move the DBS public interest obligation rule in its entirety to Part 25 of the Commission's rules and make necessary ministerial adjustments.<sup>91</sup> Therefore, the public interest requirements for DBS and DTH in the Ku-band will be codified in Part 25 in a new Subpart J.

25. *Eligibility and Foreign Ownership § 100.11*. The *Notice* proposed moving existing Section 100.11 (which tracks the language of Sections 310(a) and (b) of the Communications Act and applies only to DBS licensees), into Part 25.<sup>92</sup> The Commission noted that moving Section 100.11 of its rules to Part 25 would not change the foreign ownership rules applicable to the DBS service or create new rules for DTH-FSS.<sup>93</sup> Part 25 does not contain specific rules restricting foreign ownership of satellite licenses. Rather, Part 25 licensees are subject to the general statutory limits, to the extent applicable, on foreign ownership in Sections 310(a) and (b) of the Communications Act.<sup>94</sup>

<sup>87</sup> See 47 U.S.C. §§ 312 and 315.

<sup>88</sup> *DBS Public Interest Order* at ¶ 10.

<sup>89</sup> See 2000 *Cable Competition Report* at ¶ 81. EchoStar, *DISH Network Satellite Television Adds Five New Public Interest Channels* (press release), Dec. 19, 2000. See also <http://www.echostar.com>.

<sup>90</sup> *Id.* *DBS Shows Diversity*, *Television Digest*, Sept 4, 2000, at 4. See also <http://www.directv.com>.

<sup>91</sup> See new Part 25, subpart J.

<sup>92</sup> Section 100.11 states "An authorization for operation of a station in the Direct Broadcast Satellite Service shall not be granted to or held by: (a) Any alien or the representative of any alien; (b) Any foreign government or the representative thereof (c) Any corporation organized under the laws of any foreign government; (d) Any corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country; (e) Any corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representatives thereof, or by any corporation organized under the laws of a foreign country, if the Commission finds that the public interest will be served by the refusal or revocation of such license." 47 C.F.R. § 100.11.

<sup>93</sup> *Notice* at ¶ 20.

<sup>94</sup> The foreign ownership restriction contained in Section 310(a) applies to all station licenses. 47 U.S.C. § 310(a) ("The station license required under this Act shall not be granted to or held by any foreign government or the representative thereof.") By contrast, the restrictions contained in Section 310(b) apply only to broadcast, common carrier, aeronautical en route, and aeronautical fixed radio station licenses. 47 U.S.C. § 310(b) ("No broadcast or common carrier or aeronautical en route or aeronautical fixed radio station license shall be granted to or held by (1) an alien or the representative of any alien; (2) any corporation organized under the laws of any foreign government; (3) any corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation (continued....)

26. In addition, the *Notice* requested comment on whether the Commission should apply the foreign ownership limitations of Section 100.11 to subscription DBS providers.<sup>95</sup> In its *1986 Subscription Video Order*, the Commission formally reclassified subscription DBS as a "non-broadcast" service.<sup>96</sup> In a 1996 decision, the International Bureau found, in ruling on MCI's eligibility to be a DBS licensee, that neither Section 310(b) of the Communications Act nor Section 100.11 of the Commission's rules applied to DBS provided on a subscription basis.<sup>97</sup> The Bureau held that because MCI planned to offer service on a subscription basis (*i.e.*, non-broadcast and non-common carrier), Section 310(b) of the Communications Act did not apply.<sup>98</sup> With respect to Section 100.11, the Bureau found that it did not apply to subscription DBS, based on the Commission's original intent in adopting the rule.<sup>99</sup> Alternatively, the Bureau stated that if Section 100.11 is construed to apply to all DBS providers, it was in the public interest to waive the rule.<sup>100</sup>

27. Subsequently, in May 1999, the Commission affirmed the International Bureau's decision, and held that the foreign ownership limits in Section 310(b) of the Communications Act did not govern MCI's eligibility to be a licensee providing subscription DBS service because it was neither a broadcaster nor a common carrier.<sup>101</sup> In the *1999 MCI Application for Review*, the Commission followed the *1986 Subscription Video Order* and held that Section 310(b) of the Act does not apply to subscription DBS service providers because they are not broadcasters.<sup>102</sup> The Commission did not, however, reach the

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organized under the laws of a foreign country; (4) any corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country, if the Commission finds that the public interest will be served by the refusal or revocation of such license").

<sup>95</sup> *Notice* at ¶ 21. See also *MCI Telecommunications Corporation*, 11 FCC Rcd 16275 (Int. Bur. 1996) ("*MCI Bureau Order*"). The *Notice* stated "in the event that the Commission affirms the Bureau's decision in the *MCI Bureau Order*, we seek comment on whether the Commission should modify its DBS eligibility rules such that the foreign ownership limitations currently located in Section 100.11 would apply to subscription DBS providers."

<sup>96</sup> See *Subscription Video Order*, 2 FCC 2d 1001, 1007 (1987), *aff'd.*, *National Association for Better Broadcasting v. FCC*, 849 F.2d 665 (D.C. Cir. 1988). Recognizing that the *Subscription Video Order* had a bearing on the applicability of Section 310(b) to subscription services, a broadcast DBS provider argued in a petition for reconsideration that it would be at a competitive disadvantage if it were subject to Section 310(b) while others providing subscription video services were not subject to the same provision. *Subscription Video Order Services*, 4 FCC Rcd 4948 (1989) ("*Order on Reconsideration*"). The Commission rejected the petitioner's argument, finding that differences between services may require imposition of different obligations and that choosing to operate as a broadcaster would have certain regulatory consequences. *Id.* at ¶ 6.

<sup>97</sup> MCI and British Telecommunications plc ("BT"), a British owned company, announced on November 1, 1996, that BT would acquire up to a one hundred percent ownership interest in MCI.

<sup>98</sup> *MCI Bureau Order* at ¶ 27.

<sup>99</sup> *MCI Bureau Order* at ¶ 22.

<sup>100</sup> *Id.* at ¶ 28.

<sup>101</sup> See *MCI Application for Review* where the Commission also rejected the contention of the National Association of Better Broadcasters ("NABB") that by not applying Section 310(b) to DBS providers offering subscription services it was eliminating all examination of character qualifications for such licensees. See *MCI Application for Review* at ¶¶ 22-25.

<sup>102</sup> *MCI Application for Review* at ¶ 12.

(continued....)

question of whether the Bureau's interpretation of Section 100.11 of the Commission's rules was correct. Rather, the Commission affirmed the Bureau's holding that even if Section 100.11 of the Commission's rules were applicable to MCI's proposal to provide subscription DBS service, a waiver was justified. The Commission deferred to this current proceeding the question of whether Section 100.11 of the Commission's rules should apply to licensees providing subscription DBS service.<sup>103</sup>

28. Commenters generally agree that the foreign ownership limitations in Section 310(b) do not apply to subscription service providers.<sup>104</sup> Most commenters also agree that the International Bureau's *MCI Bureau Order* correctly reasoned that Section 100.11 of the Commission's rules was intended only to codify the restrictions of Section 310 of the Communications Act, which does not limit private foreign ownership of subscription DBS providers.<sup>105</sup> The United Church of Christ and the Consumers Union (collectively "UCC") argue, however, that in the MCI decision the International Bureau erred in removing broadcast ownership and eligibility requirements from subscription DBS.<sup>106</sup> The Commission addressed and rejected UCC's contention in its order affirming the Bureau's Order. Therefore, we do not need to address UCC's arguments here.<sup>107</sup>

29. In this Order, we eliminate Section 100.11. When the Commission adopted Part 100 including Section 100.11, it determined to take a limited regulatory approach to DBS. In first proposing rules in 1981, the Commission stated that it was seeking to apply an "open and flexible approach" to DBS to "allow the business judgments of individual applicants to shape the character of the service offered."<sup>108</sup> The Commission stated that it intended to impose on DBS "only those regulatory requirements that [were] expressly mandated by the Communications Act" to afford the DBS service maximum regulatory freedom to develop.<sup>109</sup> When it adopted final rules for DBS in 1982, the Commission reaffirmed its intention to take a flexible regulatory approach and to impose minimal regulation, allowing DBS applicants and licensees the maximum degree of regulatory freedom.<sup>110</sup>

30. In the early 1980's, the Commission assumed that all DBS providers would be either broadcasters or common carriers, and stated that even if DBS services were offered on a subscription basis, they would "still be classified as broadcast services unless and until the Commission determines

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<sup>103</sup> See *MCI Application for Review* at ¶ 21.

<sup>104</sup> See, e.g., Comments of Loral at 6; Comments of News Corp. at 8-9; Comments of PanAmSat at 5; Comments of Primestar at 17-18; Comments of USSB at 4.

<sup>105</sup> Comments of Loral at 6.

<sup>106</sup> UCC Comments at 2-3.

<sup>107</sup> *MCI Application for Review* at ¶ 22-25.

<sup>108</sup> See *Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference*, Gen. Dkt. No. 80-603, 86 FCC2d 719, n. 21, *supra*, at ¶89 (1981) ("1981 DBS NPRM").

<sup>109</sup> *Id.* at ¶ 89. See also *id.* at n. 64 (the Commission recognized that the policies and regulatory classification for DBS could be resolved prior to the DBS service becoming operational).

<sup>110</sup> See *Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference*, 90 FCC 2d 676, n. 21, *supra*, at ¶ 81 (1982) ("1982 DBS Report and Order").

otherwise."<sup>111</sup> Thus, at the time Section 100.11 was adopted, all DBS providers were subject to the foreign ownership restrictions imposed by Section 310(b) of the Communications Act.

31. As noted above, the Commission in its *1986 Subscription Video Order* did revisit the issue of DBS regulatory classification and found that DBS service, when offered on a subscription basis, is not broadcasting.<sup>112</sup> In the Commission's decision in the *1999 MCI Application for Review*, it specifically held that because subscription DBS is not a broadcast service, Section 310(b) does not apply.<sup>113</sup> Although Section 100.11, by its literal terms, extends to all DBS providers, subscription as well as broadcast and common carrier, there is no indication, that the Commission, in 1982 when it adopted the rule, meant to impose foreign ownership restrictions on DBS providers that are not subject to the foreign ownership restrictions in Section 310(b).

32. Furthermore, we find that there is no public policy justification for imposing foreign ownership restrictions on DBS providers that are not subject to such restrictions under Section 310(b). First, licensees using FSS satellites to provide subscription DTH service that is almost identical to DBS service are not subject to foreign ownership restrictions nor do we believe it to be in the public interest to add such new DTH regulation. Second, eliminating these foreign ownership-licensing restrictions will allow DBS to compete on a more equal regulatory basis with cable, a service which does not have foreign ownership restrictions.<sup>114</sup> Third, as PanAmSat notes, eliminating foreign ownership restrictions on subscription DBS and DTH service providers will promote flexible investment policies.<sup>115</sup> Finally, we believe that by eliminating Section 100.11 of the Commission's rules, we will eliminate regulatory uncertainty about the circumstances under which such rules apply and that, as a result, our eligibility requirements will be clearer. Accordingly, we find it in the public interest to eliminate Section 100.11 of our rules. DBS providers will, of course, remain subject to the relevant statutory requirements of Section 310 of the Communications Act.

33. *Foreign Ownership Restrictions on DTH.* The *Notice* asked whether to impose foreign ownership limitations similar to those in Section 100.11 on DTH-FSS operators providing service on a subscription basis.<sup>116</sup> As explained in the *Notice*, DBS and DTH are delivered using different distribution methods.<sup>117</sup> Typically, FSS licensees lease transponder capacity to a DTH video service provider that in turn markets its product to consumers. In the DBS model, however, the satellite operator provides service directly to its customers. Commenters do not support imposing foreign ownership restrictions on DTH-FSS. PanAmSat is concerned that it would be administratively burdensome to enforce a foreign ownership limit on DTH-FSS licensees and service providers. PanAmSat argues that if we were to impose foreign ownership restrictions on DTH-FSS providers, space station licensees would be obligated

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<sup>111</sup> See *1981 DBS NPRM* at n. 64. See also *MCI Application for Review* at ¶ 19.

<sup>112</sup> *Subscription Video Order Services* 4 FCC Rcd 4948 at ¶¶ 4 and 6.

<sup>113</sup> *MCI Application for Review* at ¶¶ 11-14.

<sup>114</sup> Comments of News Corp. at 8-9. News Corp. argues that foreign ownership limitations are not imposed on other subscription MVPD services with the exception of operators providing service on a broadcast or common carrier basis.

<sup>115</sup> See Comments of PanAmSat at 18 (urging the Commission not to impose additional foreign ownership requirements for DTH-FSS).

<sup>116</sup> *Notice* at ¶ 20.

<sup>117</sup> *Notice* at ¶ 20.



to monitor the ownership of its customers, *i.e.* those leasing transponder capacity.<sup>118</sup> Additionally, PanAmSat contends that foreign ownership limits would harm the U.S. satellite industry by artificially and unnecessarily restricting demand for transponders capable of serving the U.S. market.<sup>119</sup>

34. We will not impose specific foreign ownership limitations on DTH-FSS licensees providing subscription service in addition to the statutory limitations in Section 310(a) and (b) of the Act.<sup>120</sup> As commenters have correctly observed, there are no additional foreign ownership rules for MVPD services provided to subscribers by means of cable or DTH satellite systems,<sup>121</sup> other than those required by statute.<sup>122</sup> We believe that adopting foreign ownership rules for DTH-FSS licensees providing subscription services would affect the competitiveness of DBS, DTH and of the MVPD markets, which would be inconsistent with the Commission's efforts to increase competition in the MVPD market.<sup>123</sup> Furthermore, we have traditionally taken a deregulatory approach to DTH-FSS and have refrained from imposing unnecessary regulations.<sup>124</sup> As is the case for DBS, we will apply the requirements set forth in *DISCO II* in deciding questions of access to the U.S. market by non-U.S. licensed satellites.<sup>125</sup>

35. *Application Requirements § 100.13.* The Notice proposed to eliminate Section 100.13, the current DBS application rule, and apply the application, processing, and licensing requirements that apply to other Part 25 satellite services.<sup>126</sup> Under Section 100.13 of the Commission's rules, a DBS applicant "shall include a showing describing the type of service that will be provided, the technology that will be employed, and other pertinent information . . . [that] may be presented in narrative format." Part 25 requires an applicant to submit FCC Form 312<sup>127</sup> and provide a narrative with pertinent details as required

<sup>118</sup> Comments of PanAmSat at 18 (urging the Commission not to impose additional foreign ownership requirements for DTH-FSS).

<sup>119</sup> *Id.*

<sup>120</sup> Notice at ¶ 20.

<sup>121</sup> Comments of News Corp. at 8-9. News Corp. argues that no foreign ownership limitations are applicable to any other subscription MVPD service including DTH-FSS, MMDS, LMDS, OVS, or SMATV with the exception of operators providing service on a broadcast or common carrier basis.

<sup>122</sup> See Amendment of Parts 76 and 78 of the Commission's Rules to Adopt General Citizenship Requirements for Operation of Cable Television Systems and for Grant of Station Licenses in the Cable Television Relay Service, 59 FCC2d 723 (1976) and 77 FCC2d 73 (1980) (declining to adopt limits on alien ownership of cable television systems); See also Notice at 6921 (noting that the Commission's rules set no restrictions on foreign ownership of DTH satellite systems, which transmit video programming to subscribers via channels in the C-Band). See 47 C.F.R. §21.4. We note that there are foreign ownership restrictions on MDS.

<sup>123</sup> See *In the Matter of United States Satellite Broadcasting, Inc., Transferor and DIRECTV Enterprises, Inc. Transferee; In the Matter of United States Satellite Broadcasting Company, Inc.*, 14 FCC Rcd 4585 (1999) ("USSB Order").

<sup>124</sup> See generally Notice where the Commission indicated a desire to continue to examine its policies to ensure that they are pro-competitive and deregulatory. See also *In the Matter of Streamlining the Commission's Rules and Regulations for Satellite Applications and Licensing Procedures*, 11 FCC Rcd 21581 (1996).

<sup>125</sup> See Amendment to the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Services in the United States, 12 FCC Rcd 24094 ¶ 98 (1997) ("DISCO II"). See Comments of Time Warner, Primestar, and USSB.

<sup>126</sup> Notice at ¶ 22.

<sup>127</sup> See 47 C.F.R. § 25.114(a).

by Section 25.114(c)(1)-(21).<sup>128</sup> We stated that information required by Part 25 is more comprehensive and specific than what is required under Part 100 and will allow the Commission to better evaluate each application. We also proposed not to apply the FSS financial qualification requirements in Section 25.140 to DBS applications.<sup>129</sup> The *Notice* also sought comment on whether DBS applicants should supply any additional technical information that is not required for other satellite services.<sup>130</sup>

36. We received no comment on application requirements and we conclude that consolidating the rules will ensure uniformity and consistency with other satellite services.<sup>131</sup> We find that applying the procedures in Section 25.114 of the Commission's rules to DBS applicants will alleviate unnecessary confusion over which application process to follow. DBS applicants will be required to provide the information requested by Form 312 and to follow all relevant Part 25 procedures.<sup>132</sup> Under the Part 25 rules, applicants will be required to provide a narrative pursuant to Section 25.114(c)(1)-(22) of the Commission's rules.<sup>133</sup> We will also require a DBS applicant to indicate in its application the type of service it plans to provide (*i.e.* broadcast, common carrier, non-common carrier, or subscription service). Therefore, we will revise paragraph (14) of Section 25.114(c) to require a DBS applicant to choose the classification of its service. We also adopt our proposal in the *Notice* not to apply the financial requirements of Section 25.140 that apply to other Part 25 satellite services.<sup>134</sup> None of the commenters in the proceeding opposed this proposal. We find that it is in the public interest not to apply financial qualifications to DBS applicants. Additionally, we will require that DBS applicants provide all relevant ITU-related information as discussed below.<sup>135</sup>

37. *Licensing Procedures 100.15.* Section 100.15 provides for a 45-day public notice period during which time interested parties may file comments and petitions related to the application.<sup>136</sup> In addition, a 45-day cut-off period is established for the filing of competing applications.<sup>137</sup> The existing Part 100 licensing procedures for DBS involve a three-step process that includes the grant of a

<sup>128</sup> See 47 C.F.R. § 25.114(c)(1)-(21).

<sup>129</sup> *Notice* at ¶ 22.

<sup>130</sup> *Id.* at ¶ 23. This issue is discussed in Section III.C., Technical Matters, *infra*.

<sup>131</sup> See 47 C.F.R. § 25.114.

<sup>132</sup> We note that the Commission has proposed modifications to the information requirements of satellite applicants, and a new satellite application form, Schedule S, to be added to FCC Form 312. See *2000 Biennial Regulatory Review – Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations*, Notice of Proposed Rulemaking, IB Docket No. 00-248, 15 FCC Rcd 25128, 25191-25201 (2000) ("*Part 25 Earth Station Streamlining NPRM*"); See also *Amendment of the Commission's Space Station Licensing Rules and Policies*, Notice of Proposed Rulemaking, IB Docket No. 02-34, 17 FCC Rcd 3847, 3875-94 (2002) ("*Space Station Reform NPRM*"). Those proceedings are still pending. DBS applicants will be subject to any revisions to the satellite license information requirements that we adopt in those proceedings.

<sup>133</sup> 47 C.F.R. § 25.114(c)(1)-(21). See also new § 25.114(c)(22).

<sup>134</sup> *Notice* at ¶ 22.

<sup>135</sup> *Notice* at ¶ 22. See ITU Radio Regulations, Appendix 30, Art. 5.

<sup>136</sup> See 47 C.F.R. § 100.15(a).

<sup>137</sup> See 47 C.F.R. § 100.15(b).

construction permit, authorization of launch, and licensing of the space station. The *Notice* tentatively concluded that the DBS licensing process is burdensome and inconsistent with the Commission's other licensing practices for fixed and mobile satellite systems that are based on a one-step process.<sup>138</sup> Thus, the *Notice* proposed to eliminate the separate DBS licensing procedures in Section 100.15, and instead, apply the Part 25 licensing provisions to DBS applications,<sup>139</sup> including a one-step licensing process,<sup>140</sup> giving the DBS licensee a construction, launch authority, and system operation deadlines in the same authorization.<sup>141</sup> The Commission requested comment on whether these proposals would provide adequate opportunities for the public to comment on DBS applications.<sup>142</sup> No one filed comments on these licensing procedure proposals.

38. We will apply the Part 25 licensing provisions to DBS applications. By adopting the Part 25 licensing process that consolidates the grant of construction permit, authorization of launch, and the licensing of the space station facilities into a single procedure<sup>143</sup> we reduce the number of separate authorizations required from three authorizations to one authorization. This will streamline the DBS licensing process and make it consistent with the procedures used for other satellite applicants.

39. *License term § 100.17.* The *Notice* proposed to amend the Part 25 rules to include a ten-year license term for non-broadcast and an eight-year license term for broadcast DBS licensees.<sup>144</sup> The license terms for DBS licensees were first established in the *1995 DBS Auction Order*,<sup>145</sup> which adopted ten years for non-broadcast and five years for broadcast licenses.<sup>146</sup> As described in the *Notice*, Congress has since expanded the maximum term for broadcast licenses from five to eight years.<sup>147</sup> Accordingly, we proposed in the *Notice* to adopt an eight-year license term for DBS broadcast licensees and a ten-year term for non-broadcast DBS licensees.<sup>148</sup> No party commented on this proposal. Furthermore, we note that we recently adopted provisions for longer license terms for FSS satellite and earth station licenses, in part because most FSS satellites have longer useful lives than was the case when we adopted the current FSS license term.<sup>149</sup> Accordingly, we hereby adopt the DBS license terms as proposed.

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<sup>138</sup> *Notice* at ¶ 24.

<sup>139</sup> See 47 C.F.R. Part 25, Subpart B.

<sup>140</sup> *Notice* at ¶ 24.

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

<sup>143</sup> See Part 25, Subpart B.

<sup>144</sup> See new § 25.146(b). See also *Notice* at ¶ 25.

<sup>145</sup> *Id.* at ¶ 25. The Commission extended DBS license terms in the *1995 DBS Auction Order* in recognition of the fact that today's satellites enjoy longer in-orbit lifespans than their predecessors. *DBS Auction Order* at ¶ 130.

<sup>146</sup> *Notice* at ¶ 25.

<sup>147</sup> 47 U.S.C. § 307(c)(1).

<sup>148</sup> *Notice* at ¶ 25.

<sup>149</sup> See *Space Station Reform NPRM*, 17 FCC Rcd at 3895-96, ¶ 143 (2002).

40. *Due diligence § 100.19.* The *Notice* proposed to retain the DBS-specific due diligence rules from Part 100 and move them into Part 25 along with the rules for DBS.<sup>150</sup> Additionally, the Commission requested comment on any further actions it could take to monitor system implementation (e.g., requiring interim implementation certifications) or whether it should eliminate or modify any of the existing due diligence rules.<sup>151</sup> The *Notice* did not propose applying the DBS due diligence rules to other satellite services and noted that the Commission has not adopted general rules regarding satellite construction milestones for all satellite services in light of the differences in system implementation plans among the many satellite services covered by Part 25.<sup>152</sup> The Commission has, however, used its general licensing authority to impose satellite construction milestones on Part 25 licensees on a service-by-service basis.<sup>153</sup>

41. Generally, commenters support the Commission's view that the Commission should retain its due diligence rules.<sup>154</sup> Specifically, Primestar supports consistent application of the due diligence rules to all similarly-situated DBS permittees. However, Primestar states that it sees no need to make any changes to the rules or apply them to other satellite services.<sup>155</sup>

42. The Commission's DBS due diligence rules, and their associated deadlines, are designed to ensure that valuable spectrum is not warehoused, and that service is timely deployed for the benefit of the public. To facilitate service to the public, the Commission has chosen not to conduct exhaustive and protracted proceedings, such as comparative hearings, to determine in advance that licensees are financially and technically capable of building and operating DBS satellites.<sup>156</sup> In order to facilitate service to the public, the Commission has placed certain conditions on DBS permittees, including a requirement to construct and commence satellite operations within a specified period of time. These conditions, which are referred to as the DBS due diligence milestones, contain two deadlines.

43. The current due diligence rules<sup>157</sup> require an entity receiving a DBS authorization to proceed with due diligence in implementing its authorization, unless the Commission determines otherwise after a proper showing in any particular case.<sup>158</sup> The Commission established a two-prong standard for licensees to meet in order to satisfy the due diligence requirements. The first prong, Section 100.19(a) of the Commission's rules, requires a DBS licensee either to begin construction or to complete a contract for construction for its satellite(s) within one year of receiving a construction permit.<sup>159</sup> Orbital positions and

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<sup>150</sup> *Notice* at ¶ 26.

<sup>151</sup> *Id.*

<sup>152</sup> However, the Commission recently invited comment on codifying generally applicable milestone requirements in part 25. See *Space Station Reform NPRM* at ¶ 103.

<sup>153</sup> The Commission has adopted specific satellite construction milestone requirements for the satellite digital audio radio service ("SDARS"), the fixed-satellite service in the 20/30 GHz Bands ("Ka-band") and the mobile satellite service in the 2 GHz Bands ("2 GHz"). See 47 C.F.R. §§ 25.144(b), 25.145(f), 47 C.F.R. 25.143(e) respectively.

<sup>154</sup> See, e.g., Comments of Primestar at 23 and Comments of Tempo at 5.

<sup>155</sup> Comments of Primestar at 23.

<sup>156</sup> See 1982 DBS Order at ¶ 114 (1982).

<sup>157</sup> 47 C.F.R. § 100.19.

<sup>158</sup> 47 C.F.R. § 100.19(c).

<sup>159</sup> 47 C.F.R. § 100.19(a) (second sentence).

channels are not assigned to a DBS permittee until it meets the first milestone.<sup>160</sup> The second prong requires the permittee to begin operation within six years of receiving its permit.<sup>161</sup> In the *DBS Auction Order*, the Commission changed these requirements for entities receiving DBS construction permits after January 1996. First, a permittee must complete construction of its first satellite within four years of authorization. Second, permittees must launch and operate all satellites in their DBS system within six years.<sup>162</sup>

44. As proposed in the *Notice*, we will move the DBS due diligence rules from Part 100 to a new Section 25.148(c). DBS licensees will be required to submit annual progress reports on system implementation pursuant to Section 25.210(l), as are other satellite licensees.<sup>163</sup> Making these annual reports publicly available will offer a transparent process to allow private parties to assist the Commission in monitoring compliance. Continued oversight and enforcement of due diligence rules will ensure that permittees are committed to expediting delivery of DBS service to the public.<sup>164</sup> Moreover, the rule prevents warehousing of "substantial blocks of spectrum and valuable orbital positions."<sup>165</sup> The Commission's due diligence rules are an effective means of monitoring the progress of licensees and they enable the Commission to determine whether scarce orbital and frequency resources are adequately utilized without imposing undue burdens on licensees. The Commission is examining whether to revise its milestone policies for all satellite services in another proceeding.<sup>166</sup>

<sup>160</sup> See *Processing Procedures Regarding the Direct Broadcast Service*, 95 FCC2d 250, 253 (1983).

<sup>161</sup> 47 C.F.R. § 100.19(a).

<sup>162</sup> *DBS Auction Order*, 11 FCC Rcd 9712 ¶ 10 (1995). In 1995, the Commission added the new requirement that those granted construction permits after January 19, 1996 complete construction of their first satellite within four years of receiving their construction permit because of its concern that the existing due diligence rules were not sufficient to ensure "consistent and purposeful progress by DBS permittees." See *Revision of the Rules and Policies for the Direct Broadcast Satellite Service*, Notice of Proposed Rulemaking, 11 FCC Rcd 1297 (1995) at ¶ 26.

<sup>163</sup> These reports are routinely available to the public except when the licensee files a request for confidentiality.

<sup>164</sup> The Commission has addressed the purpose of due diligence in several contexts. See *USSB Order* at n.61 (citing the *Advanced I* decision, where the Commission stated that "[t]he fact that Advanced continues to have a binding construction contract, or that it has made all payments required by this contract does not excuse its failure to meet the second part of its due diligence requirement --operation of its direct broadcast satellite system.") In this order the Commission waived Section 100.19(a) of its rules. See also *Advanced Communications Corp.*, 10 FCC Rcd 13337 (1995) ("*Advanced I*"), *aff'd Advanced Communications Corp.*, 11 FCC Rcd 3399 (1995) ("*Advanced II*"), *aff'd Advanced Communications Corp. v. FCC*, 84 F.3d 1452 (D.C. Cir. 1996) *cert. denied*, *Advanced Communications Corp. v. FCC*, 117 S.Ct. 718 (1997). See also *1982 DBS Order*, 90 FCC2d at 719 ¶ 114. See also *Revision of Rules and Policies for the Direct Broadcast Satellite Service*, Report and Order, 11 FCC Rcd 9712, ¶ 10 (1995) (adopting additional due diligence requirements applicable to auction licensees is designed to "ensure consistent and purposeful progress toward construction and operation of DBS systems by those receiving permits" and to further the "Congressional goals of preventing warehousing of spectrum and encouraging investment in and rapid deployment of new services." (citing 47 C.F.R. § 309(j)(4)(B)).

<sup>165</sup> See *In the Matter of United States Satellite Broadcasting Company, Inc. Application for Additional Time to Construct and Launch a Direct Broadcast Satellite at 110° W.L. Orbital Location*, 14 FCC Rcd 4585 at ¶ 19 (released April 1, 1999) citing *CBS, Inc., For Authority to Establish Interim Direct Broadcast Satellite Systems*, Memorandum Opinion and Order, 92 FCC 2d 64, at ¶ 119 (1982) ("*CBS I*").

<sup>166</sup> See *In the Matter of Amendment of the Commission's Space Station Licensing Rules and Policies, 2000 Biennial Regulatory Review -- Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the* (continued....)

45. Finally, Dominion suggests that we amend the due diligence rules to allow DBS permittees to satisfy their due diligence obligations through the lease or purchase of transponder space on a satellite that is owned by another permittee.<sup>167</sup> We decline to amend our rule and find that it is more appropriate to address questions regarding leases or purchase of transponder capacity on a case-by-case basis. Although we generally prefer that providers use their own facilities because we believe that facilities based competition offers the most benefit to the consumer, we note that the International Bureau did grant a waiver to Dominion to implement its system using leased transponders on an Echostar satellite.<sup>168</sup>

46. *Equal employment opportunities § 100.51.* The Commission's equal employment opportunity ("EEO") rules are service specific. The EEO rules governing DBS are codified in Part 100 (Section 100.51(a)-(e)) of the Commission's rules.<sup>169</sup> The DBS EEO rules have two parts: the first part applies to DBS entities that operate as broadcasters (Section 100.51(a)-(d));<sup>170</sup> the second part applies to subscription DBS licensees (Section 100.51(e)).<sup>171</sup> DBS licensees operating as broadcasters are subject to the EEO requirements in Section 100.51(a)-(d) and those DBS licensees operating on a subscription basis and DTH-FSS licensees providing subscription service are subject to Section 100.51(e), which cross-references the Part 76 EEO requirements.

47. In the *Notice*, we proposed to eliminate the DBS-specific rule located in Part 100 (Section 100.51) and instead adopt a Part 25 rule that cross-references the Commission's Part 73 (applicable to broadcast) and Part 76 (applicable to MVPD) EEO rules. As previously discussed, DBS providers have the choice of providing service on a broadcast, common carrier, or non-broadcast, non-common carrier basis. Thus, the applicable EEO rules depend on the type of service a DBS operator is providing.

48. After release of the *Part 100 Notice*, in the *Lutheran Church* case, the D.C. Circuit Court of Appeals held that a portion of the broadcast EEO rules<sup>172</sup> were unconstitutional.<sup>173</sup> In September 1998,

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*Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations*, IB Docket Nos. 02-34 and 00-248, Notice of Proposed Rulemaking and First Report and Order, 17 FCC Rcd 3847 (2002) ("*Space Station Reform NPRM*"). The Commission may in a future proceeding consider the issue of whether to continue to apply the traditional DBS "totality of the circumstances" test in determining whether licensees have met their due diligence requirement. See *R/L DBS Company Order*. Alternatively, the Commission could decide to hold DBS licensees to the strict milestone requirements applicable to FSS licenses.

<sup>167</sup> Dominion Comments at 2-4. See *In the Matter of United States Satellite Broadcasting Company, Inc. Application for Additional Time to Construct and Launch a Direct Broadcast Satellite at 110° W.L. Orbital Location*, 14 FCC Rcd 4585 at ¶ 19 (1999). See also *Dominion Order* at ¶ 6 where the International Bureau granted Dominion authority to commence operation of a direct broadcast satellite service at the 61.5° W.L. orbital location using the EchoStar III satellite which is currently operating at that location. The Bureau also waived, on its own motion, Dominion's satellite construction and launch requirements under the due diligence rules.

<sup>168</sup> See *Dominion Order* where the International Bureau granted Dominion authority to commence operation of a direct broadcast satellite service at the 61.5° W.L. orbital location, using the EchoStar III satellite which is currently operating at that location. The Bureau also waived, on its own motion, Dominion's satellite construction and launch requirement under the due diligence rules.

<sup>169</sup> 47 C.F.R. § 100.51.

<sup>170</sup> 47 C.F.R. § 100.51(a)-(d).

<sup>171</sup> 47 C.F.R. § 100.51(e).

<sup>172</sup> See 47 C.F.R. § 73.2080.

the Commission issued an order suspending the rules in light of *Lutheran Church*.<sup>174</sup> Thereafter, in February 2000, the Commission issued a *Report and Order*, affirming its authority to enforce the anti-discrimination rule and issued new EEO rules for broadcast, cable, and MVPDs.<sup>175</sup> In January 2001, the D.C. Circuit Court of Appeals found the Commission's new EEO rule for broadcasters unconstitutional and vacated the rule.<sup>176</sup> We issued an *NPRM* proposing new EEO rules for broadcast, cable and MVPDs.<sup>177</sup> We received no comments regarding our proposals on EEO rules.

49. As proposed in the *Part 100 Notice* we eliminate the DBS-specific rule located in Part 100 (Section 100.51) and instead adopt a Part 25 rule that cross-references the Commission's Part 73 (applicable to broadcast) and Part 76 (applicable to MVPD) EEO rules to the extent applicable. Because Part 73 and 76 rules have been partially suspended, we will require DBS providers to comply with the Part 73 and 76 rules to the extent that they have not been suspended. Therefore, DBS providers operating on a broadcast or subscription basis and DTH-FSS licensees providing subscription service will be required to comply with the non-discrimination requirement, currently in effect.<sup>178</sup> We will require DBS providers to comply with any other EEO requirements that may be subsequently adopted or enforced by the Commission for broadcasters and MVPDs.<sup>179</sup> Finally, to implement these rule revisions, we revise Section 25.114 (c)(14) to require DBS applicants to specify whether they plan to operate on a broadcast or non-broadcast basis.

50. *Geographic Service Requirements § 100.53.* In the *DBS Auction Order*, the Commission imposed geographic service obligations requiring DBS licensees authorized after January 19, 1996 to provide service where technically feasible to Alaska and Hawaii upon commencement of operations.<sup>180</sup>

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<sup>173</sup> See *Lutheran Church-Missouri Synod v. FCC*, 141 F.3d 344, reh. denied, 154 F.3d 487 (D.C.Cir. 1998) ("*Lutheran Church*"). The court remanded the anti-discrimination portion of the rule [Section 73.2080(a)] to the Commission for it to determine whether it was necessary. The court did not mention the cable/MVPD rules. The Commission filed a petition for rehearing. On September 15, 1998, the Court ruled *en banc* to uphold the original decision in *Lutheran Church*.

<sup>174</sup> See *Suspension of Requirement for Filing of Broadcast Station Annual Employment Reports and Program Reports*, 13 FCC Rcd 21998 (1998). Specifically, the order suspended the requirement for broadcasters to file annual employment reports (FCC Form 395-B) and EEO Program Reports (FCC Form 396), and for assignees or transferees to file the Model EEO Program Reports (FCC Form 396-A).

<sup>175</sup> See *In the Matter of Review of the Commission's Broadcast and Cable Equal Employment Opportunity Rules and Policies and Termination of the EEO Streamlining Proceeding*, Report and Order, 15 FCC Rcd 2329 (2000) ("*First EEO Report and Order*"), recon. denied, 15 FCC Rcd 22548 (2000) and codified as Section 73.2080 of the Commission's Rules. 47 C.F.R. § 73.2080.

<sup>176</sup> See *MD/DC/DE Broadcasters Association v. FCC*, 236 F.3d 13, rehearing den. 253 F.3d 732 (D.C. Cir. 2001), pet. for cert. filed, *MMTC v. MD/DC/DE Broadcasters Association*, No. 01-639 (October 17, 2001) ("*MD/DC/DE Broadcasters*"). The Court therein found unconstitutional one of two options for achieving broad outreach provided by the broadcast EEO outreach requirements adopted in the *First EEO Report and Order*.

<sup>177</sup> See *Review of the Commission's Broadcast and Cable Equal Employment Opportunity Rules and Policies*, Second Notice of Proposed Rulemaking, MM Docket No. 98-204, FCC 01-363 (rel. December 21, 2001).

<sup>178</sup> See *In the Matter of Suspension of the Broadcast and Cable Equal Employment Opportunity Outreach Program Requirements*, FCC 01-34 (rel. January 31, 2001).

<sup>179</sup> *Id.*

<sup>180</sup> *DBS Auction Order* at ¶ 128. See also 47 C.F.R. § 100.53(b).

These obligations reflect the Commission's ongoing concern that residents of these States have access to DBS service. The rule requires DBS licensees that were holding DBS permits as of January 19, 1996 to relinquish their DBS channel assignments at the 175° W.L., 166° W.L., 157° W.L., and 148° W.L. orbital locations (the "western channels") if they do not provide service to Alaska and Hawaii before the expiration of their current authorizations.<sup>181</sup> The Commission recognizes the importance of establishing DBS as a competitor to cable in the MVPD market in the States of Alaska and Hawaii and is committed to establishing policies and rules that will promote service to underserved areas, improve the delivery and quality of service, and provide more competition in the MVPD market.

51. The *Notice* proposed to move the DBS geographic service requirements from Part 100 to Part 25.<sup>182</sup> The *Notice* also proposed to continue to require that all DBS licensees granted authorizations after January 19, 1996 provide service to Alaska and Hawaii where technically feasible.<sup>183</sup> In addition, it sought comment on whether this rule should apply to licensees that were granted authorizations prior to January 19, 1996 when they request extensions of time or renewal of their licenses.<sup>184</sup> Further, the *Notice* requested comment on whether the Commission should extend its geographic service rules to Puerto Rico and other U.S. territories.<sup>185</sup> Additionally, the *Notice* sought comment on whether there are other steps that the Commission should take to ensure delivery of service to non-CONUS locations.

52. In response to the *Notice*, DBS providers assert that the existing geographic service rules are adequate,<sup>186</sup> whereas representatives of Alaska and Hawaii are concerned about the initiation of service, quality of service and that there be adequate coverage.<sup>187</sup> Comments and *ex parte* comments<sup>188</sup> raised

<sup>181</sup> *Id.* 47 C.F.R. § 100.53(a). Since January 1996, the Commission has granted several authorizations for DBS satellites to operate at orbital locations that can serve Alaska and Hawaii and conditioned those licenses on the requirement that the licensees provide service to those states. See *In re Application of MCI Telecommunications Corporation for Authority to Construct, Launch and Operate*, 11 FCC Rcd 16275 at ¶ 6 (1996); *In re Application of MCI Telecommunications Corporation for Authority to Construct, Launch and Operate a Direct Broadcast Satellite System at 110° W.L. Orbital Location*, 14 FCC Rcd 11077 at ¶ 42 (1999); *In re Application of EchoStar DBS Corporation for Authority to Construct, Launch and Operate a Direct Broadcast Satellite System at 148° W.L.*, 12 FCC Rcd 11946 at ¶ 5 (1996); *In the Matter of Tempo Satellite, Inc. Application for Authority to Launch and Operate a Direct Broadcast Satellite, Application for Minor Modification of Construction Permit, Special Temporary Authority to Test and Operate and Request Waiver of Section 319(d) of the Communications Act*, 13 FCC Rcd 9200 at ¶¶ 5, 35 (1997); *In the Matter of Tempo Satellite, Assignor, and DIRECTV Enterprises, Inc.*, 14 FCC Rcd 7946 (1999); *In the Matter of DIRECTV Enterprises, Inc. Application to Launch and Operate a Direct Broadcast Satellite Service Space Station*, 16 FCC Rcd 18530 (2001); and *In the Matter of EchoStar Satellite Corporation Application for Minor Modification of Direct Broadcast Satellite Authorization, Launch and Operating Authority for EchoStar 7*, 17 FCC Rcd 894 (2002); *In the Matter of DIRECTV Enterprises, Inc. Application to Launch and Operate a Direct Broadcast Satellite Service Space Station*, 15 FCC Rcd 23630 (2000); and *In the Matter of DIRECTV Enterprises, Inc. Application for Authority to Launch and Operate a Replacement Direct Broadcast Satellite Service Space Station*, 14 FCC Rcd 13159 (1999).

<sup>182</sup> *Notice* at ¶ 33 proposing to move § 100.53 to a new Section in Part 25.

<sup>183</sup> *Id.*

<sup>184</sup> *Id.*

<sup>185</sup> *Notice* at ¶ 35.

<sup>186</sup> See, e.g., Comments of DIRECTV at 16; Comments of USSB at 6.

<sup>187</sup> See generally *Ex Parte* Comments of Microcom; Comments of Hawaii; Comments of Alaska; Letter from Representative Patsy Mink (D-HI) (dated 9/18/2000 and 12/27/1999); Letter from Senator Daniel K. Akaka (D-HI) (dated 1/4/2000); Letter from Senator Ted Stevens (R-AK) (dated 2/15/2000 and 9/21/2000); and Letter from (continued....)



several issues. These include: 1) the feasibility of providing a defined level of service; 2) whether the rules should apply to requests for modification of license renewals and replacements as well as current licensees; 3) the definition of comparable service to all areas of coverage; 4) a proposed off-shore states policy;<sup>189</sup> 5) the status of service to Puerto Rico and the Virgin Islands; 6) application of the rules to DTH-FSS; and 7) application of the Commission's geographic service rules to foreign-licensed satellites. Commenters contend that the vast majority of service in both Alaska and Hawaii is delivered by a single provider, since it offers the only programming packages that are attractive to most consumers.<sup>190</sup> The State of Hawaii asserts that there is only one DBS licensee making progress in bringing adequate DBS programming to consumers in the State, and that the other licensee does not appear to be trying to comply with the obligation.<sup>191</sup>

53. In its effort to facilitate service to the States of Alaska and Hawaii, the Commission has had continuous discussions with representatives of both States and other interested parties concerning this issue. Commission staff held separate and joint meetings with each major DBS provider and with representatives of the States of Alaska and Hawaii, giving them the opportunity to share concerns and information regarding their particular DBS service plans for the States.<sup>192</sup> In this same time period, both providers announced plans to begin, and now provide service to the State of Hawaii. In addition, both providers stated that they already were providing some level of service to Alaska. The Commission plans

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Senator Inouye (D-HI) (dated 3/19/1998 and 9/21/2000). Commenters representing the States of Alaska and Hawaii urge the Commission to adopt a four part rule: 1) the Commission should extend the geographic service requirements to all MVPD satellite providers; 2) the Commission should clarify that the service requirements apply to all DBS licensees that were granted authorization prior to January 19, 1996; 3) the Commission should require licensees to provide service to Alaska and Hawaii from their western orbital locations by the end of their western orbital milestones; 4) should require DBS licensees to provide full service to Alaska and Hawaii before they can be eligible to provide service beyond their existing eastern allocations. The States of Alaska and Hawaii assert that this will encourage DBS service providers to expedite service to these areas.

<sup>188</sup> The State of Hawaii and the State of Alaska and various other parties have filed *ex parte* comments reasserting the arguments stated in their original comments. Due to the constant changes in the industry, many of the particular facts noted in these comments are outdated. Therefore, we have addressed the essential arguments in the following: Ex Parte Comments of EchoStar (March 14, 2001); Ex Parte Comments of Hawaii (March 16, 2001); Ex Parte Comments of Hawaii (January 29, 2001); Ex Parte Comments of Hawaii (November 21, 2001); Ex Parte Comments of Hawaii (October 30, 2000); Senator Inouye, et. al. (October 6, 2000); Ex Parte Comments Microcom (March 7, 2000); Ex Parte Comments of Hawaii (November 3, 1999); Ex Parte Comments of PanAmSat Corporation (August 16, 1999); Ex Parte Comments of Alaska (August 13, 1999); Ex Parte Comments of the Governor of the State of Alaska (August 6, 1999); Ex Parte Comments of Hawaii (June 24, 1999); Ex Parte Comments of Hawaii (August 8, 1998); Ex Parte Tom Brady (April 11, 2001); Ex Parte Comments of Hawaii (October 25, 2001); Ex Parte Comments of Hawaii (January 11, 2002); Ex Parte Comments of Alaska (January 14, 2002); Ex Parte comments of Jon Sobostad; and Ex Parte Comments of Hawaii (July 14, 1998).

<sup>189</sup> See Notice at ¶ 34. This policy would require licensees of DBS channels at eastern orbital locations to demonstrate that they have provided service to the states of Alaska and Hawaii before they are eligible to provide service from any eastern DBS channel assignments beyond their existing assignments.

<sup>190</sup> See Ex Parte Comments of Hawaii 2; Ex Parte Comments of Tom Brady, Microcom (March 30, 2001). In Alaska, approximately 95% of the service is provided by EchoStar. In Hawaii the numbers are similar where nearly all of the 3000 subscribers are associated with DISH TV.

<sup>191</sup> See Ex Parte Comments of Hawaii at 3.

<sup>192</sup> The first meeting with EchoStar took place in April 2000 and the second with DIRECTV took place in June 2000.

to continue to work with DBS operators, particularly with DIRECTV, and the States to ensure that DBS licensees provide the service required under our rules.

54. *Technical Feasibility.* Underlying the Commission's geographic service rules is the concept of technical feasibility. In its *DBS Auction Order*, the Commission found that service to Alaska and Hawaii is technically feasible and economically reasonable from the 110° W.L. and 119° W.L. orbital locations, as well as from the four western orbital locations.<sup>193</sup> The Commission stated that any licensee at one of these six locations should anticipate providing service to Alaska and Hawaii.<sup>194</sup> The Commission did not determine whether service to Alaska and Hawaii was technically feasible or economically reasonable from the 101° W.L. or 61.5° W.L. orbit locations. Rather, it stated that a licensee that has channels at 101° W.L. or 61.5° W.L. that does not provide service to Alaska or Hawaii will bear the burden of showing that such service is not feasible as a technical matter, or that while technically feasible, such service would require so many compromises in satellite design and operation as to make it economically unreasonable.<sup>195</sup>

55. We note that Ku-band<sup>196</sup> satellite operators typically require a minimum elevation angle<sup>197</sup> of ten degrees or greater in order to provide reliable service to a particular location,<sup>198</sup> although service in Alaska has often been offered at elevation angles as low as five degrees.<sup>199</sup> The chart below shows elevation angles above the horizon as seen from an earth station at various Alaskan locations, when looking toward the four eastern geostationary orbit locations. The shading in the table indicates those Alaskan locations where a minimum elevation angle of either five degrees or ten degrees is not met.<sup>200</sup>

<sup>193</sup> *DBS Auction Order* at ¶ 128 cited in *Notice* at ¶ 33.

<sup>194</sup> *DBS Auction Order* at ¶ 128.

<sup>195</sup> *Id.*

<sup>196</sup> The term Ku-band is not consistently defined. Many sources define it to include the frequency range from 10.9 to 17 GHz. The IEEE defines the Ku-band as a frequency band between 12 GHz and 18 GHz, usually in one of the ITU assigned bands. For DBS operations in Region 2, Ku-band can be understood to mean the 12.2-12.7 GHz BSS frequency allocation.

<sup>197</sup> Elevation angle can be defined as the upward tilt of an earth station antenna measured in degrees relative to the horizontal plane (ground), that is required to aim the earth station antenna at the satellite. When aimed at the horizon, the elevation angle is zero. If the earth station antenna were tilted to a point directly overhead, it would have an elevation angle of 90°.

<sup>198</sup> See <http://www.mlesat.com/install.html> (visited March 16, 2001) citing excerpts from *Satellite Installation*, produced by Shelburne Films, written and presented by Mark Long, 1997. This source states that minimum antenna elevation angles of 5°, for C-band, and 10° for Ku-band, usually are recommended. This value is determined in part by the amount of ground noise that the antenna receives (significantly higher at lower elevation angles). In addition, rain attenuation as a function of path length between the satellite and the earth station (greater at lower elevation angles) will degrade the overall signal-to-noise ratio. The Commission's rules generally require a minimum elevation angle of 5° for transmitting earth stations. 47 C.F.R. § 25.205.

<sup>199</sup> See *Ex Parte Comments of Tom Brady, Microcom* (March 30, 2001). Because of its high latitudes, portions of Alaska cannot be seen from the geostationary satellite arc at higher elevation angles. Although service is offered, many providers make disclaimers regarding its availability at these lower elevation angles.

<sup>200</sup> The relationship between elevation angle and service provision is not absolute. Many other factors can influence the provision of service to a given area. We note also that there are a number of differing regulatory requirements addressing minimum elevation angles. For instance, Article 21.14 of the International Radio Regulations specifies a minimum receiving earth station elevation angle of three degrees for the purpose of (continued....)

For service to Hawaii the situation is different. Elevation angles to Honolulu from the 101° W.L., 110° W.L. and 119° W.L. locations are 22.5°, 31°, and 40°, respectively, well above the ten degree value. We now conclude that it is not technically feasible to serve either Alaska or Hawaii from the 61.5° W.L. orbit location, because satellites at that location have no line-of-sight visibility to these States.<sup>201</sup> We will reflect this conclusion in our rules.<sup>202</sup> With respect to the 101° W.L., 110° W.L. and 119° W.L. orbit locations, we recognize that it is possible to provide service to Hawaii and also to significant portions of Alaska. The fact that operators now offer service to Alaska and Hawaii from these three locations further demonstrates that it is technically feasible and economically reasonable to serve Alaska and Hawaii from the 101° W.L., 110° W.L. and 119° W.L. orbit locations.<sup>203</sup>

#### ELEVATION ANGLE TO VARIOUS ALASKAN LOCATIONS FROM FOUR EASTERN DBS ORBIT POSITIONS

Alaskan Location	Latitude	Longitude	Elevation angle from 61.5°W (degrees)	Elevation angle from 101°W (degrees)	Elevation angle from 110°W (degrees)	Elevation angle from 119°W (degrees)
Attu Island	52 N	172 E	<0	<0	<0	4
Anchorage	61 N	150 W	<0	10	13	16
Barrow	71 N	157 W	<0	<0	4	6
Fairbanks	65 N	148 W	<0	8	11	13
Juneau	58 N	134.5 W	<0.25	18	21	23
Kodiak	58 N	152.5 W	<0	11	15	18
Nome	64 N	165.5 W	<0	2	6	9

 10° elevation angle is not met

 5° elevation angle is not met

(Continued from previous page) —————

coordination between space and terrestrial systems. The Region 2 BSS Plan is based on the desirability of a minimum elevation angle of 20°. However, many exceptions are recognized including the inability to achieve this value at latitudes above 60°, the desirability of elevation angles in excess of 30° in mountainous areas, and an elevation angle of at least 40° in some high precipitation areas. (See § 3.12 of Annex 5 to Appendix 30). Finally, due to interference considerations, the Commission normally requires a minimum earth station elevation angle of five degrees. See 47 C.F.R. § 25.205.

<sup>201</sup> The elevation angle from 61.5° W.L. to Honolulu, and to all parts of Alaska other than the panhandle region is <0 degrees. In the regions of Alaska south of 60° north latitude (Alaskan panhandle), elevation angles are less than 1°.

<sup>202</sup> See new §25.148(c).

<sup>203</sup> See, eg., *In the Matter of DIRECTV Enterprises, Inc. for Authority to Launch and Operate a Direct Broadcast Satellite Service Space Station*, FCC DA 00-2381, 15 FCC Rcd 23630 (2000); and *In the Matter of EchoStar Satellite Corporation Application for Authority to Make Minor Modifications to Direct Broadcast Satellite Authorization Launch and Operation Authority*, FCC DA 00-2382, 15 FCC Rcd 23636 (2000).

56. In examining other factors regarding service to Alaska and Hawaii, we recognize that U.S. DBS systems must comply with the provisions contained in Appendices 30 and 30A of the International Radio Regulations. These Appendices and their associated Regional Plans<sup>204</sup> assign specific orbital locations, channels and beams to each Administration within the particular ITU Region.<sup>205</sup> In the Region 2 BSS and feeder-link Plans, only the four western U.S. orbital locations (*i.e.*, 148° W.L., 157° W.L., 166° W.L. and 175° W.L.) were intended for the provision of service to Alaska and Hawaii.<sup>206</sup> If at a given orbital location (*e.g.*, 101° W.L. or 119° W.L.), a DBS licensee intends to provide service outside of the service area of the original Region 2 BSS Plan assignment, it must seek modification of the characteristics of the frequency assignments as specified in the Appendices 30 and 30A BSS and feeder-link Plans for Region 2. In following the Plan modification process,<sup>207</sup> proposed modifications must respect the power limits specified in the International Radio Regulations that are intended to protect the services of other Administrations.<sup>208</sup> If these limits are exceeded, the United States must obtain the agreement of the affected Administration(s) on behalf of the DBS operator. The process of seeking agreement can be lengthy and the outcome is not guaranteed. Moreover, a DBS system exceeding the international limits specified in Annex 1 of the Appendices 30 and 30A has no international standing, *i.e.* no protection from interference from other systems until the Plan modification process is complete. Nor can it operate outside of the Plan parameters (*e.g.* higher pfd values) if the affected Administration complains about interference from the U.S. DBS system.

57. Historically, U.S. DBS systems have had particular difficulty in expanding service areas to better serve Alaska, largely due to the international power flux density<sup>209</sup> ("pfd") limits in place to protect terrestrial services in Region 1.<sup>210</sup> Typically the footprints of U.S. DBS satellites serving Alaska also

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<sup>204</sup> The United States is located within ITU Region 2 (North and South America) and service to the U.S. is provided for in the Region 2 BSS and feeder-link Plans. The U.S. also has some channel assignments in the Regions 1 and 3 BSS and Feederlink Plans at eastern-hemisphere locations, that are intended for service to U.S. possessions and territories in the Asia-Pacific region (*e.g.*, Guam).

<sup>205</sup> The Appendices also provide basic operating characteristics and associated technical data, sharing criteria, a method for modifying the Plans, and limits for determining the need to coordinate with other Administrations.

<sup>206</sup> Only these four locations have beams in the ITU Region 2 BSS and feeder-link Plans to cover Hawaii and Alaska.

<sup>207</sup> The Plan modification process is contained Article 4 of Appendices 30 and 30A of the International Radio Regulations.

<sup>208</sup> See Annex 1 to Appendices 30 and 30A to the International Radio Regulations that contain certain limits for determining whether a service of an Administration is affected by a proposed modification to the Plans. The limits include various pfd values, changes in the overall equivalent protection margin or equivalent noise temperature. These limits are intended to protect other Administration's Plan assignments, FSS networks, and terrestrial systems. These threshold values must be met by proposed BSS systems or the U.S. must seek the agreement of the affected Administration on behalf of the U.S. DBS operator.

<sup>209</sup> Power flux density can be defined as a measure of the radiated power from the satellite as observed on the ground. It is the power received over a given surface area and within a specified bandwidth (units = dBW/m<sup>2</sup>/Hz).

<sup>210</sup> See *In re Application of EchoStar Satellite Corporation for Special Temporary Authority to Operate a Direct Broadcast Satellite Over Channels 1-31 (Odd) and 2-26 (Even) at the 110° W.L. Orbital Location*, Order, 14 FCC Rcd 10006 (1999).

illuminate portions of Siberia.<sup>211</sup> Prior to the World Radiocommunication Conference 2000 (WRC-2000), the Appendix 30 pfd limits were very constraining, inhibiting the provision of DBS service to Alaska.<sup>212</sup> To protect terrestrial receivers, these pfd limits were more stringent at lower elevation angles (*i.e.*, for satellites further east, such as at 101° W.L.). At WRC-2000, the U.S. was successful in having the international pfd limits that protect terrestrial services in Region 1 relaxed.<sup>213</sup> The modified terrestrial protection limits now applicable in Siberia allow increased effective isotopically radiated power (“eirp”) from U.S. DBS satellites into Alaska. Further, WRC-2000 also modified the pfd limits applied to Region 2 BSS in order to protect FSS operations in Region 1.<sup>214</sup> Relaxation of these FSS protection limits at larger orbital separations ( $>6.2^\circ$ )<sup>215</sup> will also permit increased DBS space station eirp to Alaska particularly from CONUS orbit locations. As a result of these modified international pfd limits, we expect the situation for service to Alaska to improve as new DBS satellites are designed and launched.<sup>216</sup>

58. In the *DBS Auction Order*, the Commission recognized that in applying the geographic service rules it is important to take into account both technical and economic factors in order to determine whether it is technically feasible to provide service.<sup>217</sup> Industry commenters urge the Commission to retain this concept of technical feasibility in any new geographic service obligations.<sup>218</sup> We will maintain the technically feasible aspect of our geographic service rules regarding service to the States of Alaska and Hawaii. We will address any questions that may arise regarding the technical feasibility of serving a particular geographic area on a case-by-case basis, while maintaining our goal of providing service to underserved areas.

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<sup>211</sup> The entire Administration of Russia, including its eastern-most Siberian regions, is considered to be part of ITU Region 1.

<sup>212</sup> These pfd limits were contained in Section 5(c) of Annex 1 to Appendix S30 (Edition of 1998).

<sup>213</sup> See International Radio Regulations, Section 4 of Annex 1 to Appendix 30. Appendices 30 and 30A, (Edition of 2001), apply to proposed modifications to the Plans received after WRC-2000. See Resolution 533 (Rev. WRC-2000).

<sup>214</sup> See Section 6 of Annex 1 to Appendix 30 and Resolution 540 (WRC-2000) in the Final Acts of WRC-2000. In Region 1 the FSS allocation is in the 12.5-12.75 GHz band, overlapping in frequency with the Region 2 BSS allocation in the 12.2-12.7 GHz band.

<sup>215</sup> The WRC-2000 recognized that the existing pfd limits applied to protect the FSS from BSS transmissions did not vary as a function of orbital separation between the FSS and BSS space station. Thus, adequate protection was not provided to FSS networks at small orbital separations, and at large separations the power limits were overly constraining to the BSS networks. The interim modified power limits that were adopted by the WRC-2000 vary with orbital separation, and are more relaxed than the previous limits for separation angles greater than approximately 6.2 degrees. These pfd values are now under study in the ITU-R and may be further revised at WRC-2003. See Resolution 540 (WRC-2000) in the International Radio Regulations (Edition of 2001).

<sup>216</sup> A DBS providers' ability to serve U.S. territories in the Caribbean region is similarly constrained by international pfd limits. At WRC-2000, the United States was also successful in relaxing certain limits to protect terrestrial services in the Caribbean. Accordingly, we also expect a similar improvement in service to U.S. territories in the Caribbean from U.S. DBS satellites designed and launched after WRC-2000. The situation for Hawaii is different, as it is geographically isolated from the territories of other Administrations, and protection of foreign terrestrial services has not been a factor in constraining DBS service.

<sup>217</sup> See *DBS Auction Order* at ¶¶ 125-128.

<sup>218</sup> See, *e.g.*, Comments of DIRECTV at 19.

59. In addition, we believe that market forces will continue to provide some incentive for DBS service providers to reach more potential customers in new markets through geographic expansion.<sup>219</sup> EchoStar and DIRECTV's space station authorizations note that DBS licensees say that they are committed to providing service to Alaska and Hawaii.<sup>220</sup> DIRECTV now serves Hawaii and Alaska from 101° W.L. and to a limited extent from the 119° W.L. orbit location.<sup>221</sup> EchoStar is providing service to Alaska and Hawaii from both the 110° W.L. and 119° W.L. orbit locations.<sup>222</sup> Recognizing that DBS licensees are now serving both Alaska and Hawaii, we believe that our existing geographic service rules are successfully promoting service to these traditionally underserved areas. We recognize, however, that many consumers in these States are dissatisfied with the programming and service options currently being offered, which are different than those offered to customers in the Mainland. We address these concerns below.

60. *Modification and License Renewals.* The State of Hawaii states that although the Commission has imposed geographic service obligations on all providers that are authorized after January 19, 1996,<sup>223</sup> Section 100.53(b) as written, applies only to permittees and licensees who are granted initial authorizations after January 19, 1996, and does not specifically cover similarly-situated DBS providers (*i.e.* DBS licensees that request an extension of time, request license renewals, or request authority to replace a satellite). Hawaii maintains that the term "authorization" in Section 100.53(b) should cover a variety of Commission actions.<sup>224</sup> Hawaii urges the Commission to clarify that Section 100.53 applies to all DBS licensees that request any type of authorization.<sup>225</sup> Further, Hawaii argues that the Commission should not exempt any existing permittees from the geographic service obligations because they have been on notice since December 1995 that their satellites should be technically capable of serving Hawaii and Alaska. Further, Hawaii states that there is no valid reason why a DBS provider should launch a satellite today that is not technically capable of serving these states.<sup>226</sup>

<sup>219</sup> See Comments of Loral at 4; Comments of DIRECTV at 16; Comments of Tempo at 6; and Reply Comments of USSB at 2.

<sup>220</sup> See *In the Matter of DIRECTV Enterprises, Inc. for Authority to Launch and Operate a Direct Broadcast Satellite Service Space Station*, 15 FCC Rcd 23630. (2000); See also *DIRECTV Application for Authority to Launch and Operate a Replacement Direct Broadcast Satellite Service Space Station*, 14 FCC Rcd 13159 (1999); and *In the Matter of EchoStar Satellite Corporation Application for Authority to Make Minor Modifications to Direct Broadcast Satellite Authorization Launch and Operation Authority*, 15 FCC Rcd 23636 (2000).

<sup>221</sup> See *DIRECTV Press Release*, El Segundo, CA, September 14, 2000. Since September 2000, DIRECTV offers four programming packages to residents of Hawaii. English language programming is broadcast from the satellite at the 101° W.L. location. However, customers do not initially have access to the full programming options and require a 29x39-inch oval receive antenna. Spanish-language programming is transmitted from the 119° W.L. location and reception requires an 18-inch antenna. Service to Alaska is also available from 101° W.L. and to a limited extent from the 119° W.L. location. Receive antenna sizes vary with location in the State. For reception from 101° W.L. we understand that 30-inch antennas may be used in southeastern regions below about 57° latitude with up to 2.4-meter or greater antennas required in the more remote locations.

<sup>222</sup> Typical antenna sizes in Hawaii range between 0.6 to 1.0 meter, depending upon location. In Alaska antenna size can vary from 0.76-1.8 meters (East Alaska) to more than 3.0 meters (West Alaska).

<sup>223</sup> Reply Comments of Hawaii at 4-5.

<sup>224</sup> Reply Comments of Hawaii at 5-6.

<sup>225</sup> *Id.* at 5-6 and Ex Parte Comments of Hawaii at 2.

<sup>226</sup> *Id.*

61. Other commenters reply that in many cases, upon renewal, DBS operators continue to use existing satellites with useful lives that extend beyond their initial license terms.<sup>227</sup> They contend that satellites constructed and launched before 1996 were not originally designed to serve Alaska and Hawaii and that it would be extremely costly, even if it were possible, to reconfigure existing in-orbit satellites.<sup>228</sup> Further, permittees that were granted their permits before 1996 made design and business decisions before the geographic service requirements were implemented.<sup>229</sup> These commenters maintain that in the event that the Commission applies the geographic service rule to operators that received their authorizations before January 19, 1996, the Commission should clarify that this rule applies only if it is technically feasible for the satellites in question to provide such service.<sup>230</sup> In adopting its geographic service rules, commenters assert that the Commission correctly provided existing systems with the necessary flexibility to phase-in service to Alaska and Hawaii.<sup>231</sup> Additionally, commenters note that applying the geographic service rules to DBS operators is unfair because other MVPD operators are not subject to any geographic service rules.<sup>232</sup> According to commenters, the costs involved in constructing and launching new satellites to comply with the post-1996 geographic service requirements and prematurely replacing existing satellites would only succeed in hindering competition to cable, not promoting it.<sup>233</sup>

62. As proposed in the *Notice*, we will incorporate the DBS geographic service requirements into Part 25 of our rules.<sup>234</sup> As proposed in the *Notice*, we will continue to apply the rule in Section 100.53(b) which requires that all DBS licensees granted authorizations after January 19, 1996 must provide service to Alaska and Hawaii, where technically feasible.<sup>235</sup> Under this requirement, DBS operators have ample time to make design and business decisions that are required to implement such service. We believe that this rule will facilitate the Commission's goal of rapid deployment of DBS services and promote improved levels of service to Alaska and Hawaii while balancing the technical constraints placed on operators. DBS providers must comply with the Commission's geographic service requirements as well as all other obligations under the SHVIA and DBS public interest obligations.

63. With respect to licensees who were granted authorizations prior to January 19, 1996 and who request extensions of time or renewal of their licenses,<sup>236</sup> DBS licensees launching a replacement satellite

<sup>227</sup> Comments of DIRECTV at 16-17; Comments of EchoStar at 9-10; Comments of Primestar at 24; Reply Comments of DIRECTV at 6; Reply Comments of USSB at 2.

<sup>228</sup> Reply Comments of DIRECTV at 6. USSB further argues that extending the requirements where the satellite is not capable of serving Alaska and Hawaii would effectively force licensees to shut down their eastern satellites at the end of the license term and expand the requirements in a way that the existing DBS providers could not have considered when they were initially designing and building their systems. Reply Comments of USSB at 2.

<sup>229</sup> Comments of EchoStar at 11.

<sup>230</sup> Comments of Primestar at 24.

<sup>231</sup> Reply Comments of USSB at 2.

<sup>232</sup> *Id.* at 12.

<sup>233</sup> *Id.*

<sup>234</sup> See new § 25.148(c).

<sup>235</sup> *Notice* at ¶ 32 citing 47 C.F.R. § 100.53(b).

<sup>236</sup> *Id.*

or significantly modifying the satellite design of a pre-1996 authorized space stations must serve Alaska and Hawaii, if technically feasible. If, however, a DBS licensee requests a renewal or extension of time of its current authorization and intends to use an existing satellite, under the post-1996 rule, a DBS operator will not be required to terminate service from its existing satellite and launch a replacement satellite in order to comply with the rules. It is neither cost effective nor a prudent use of resources for a DBS operator to reconfigure its existing satellite system in order to comply with the Commission's geographic service rules if the operator is still using a satellite authorized before 1996.<sup>237</sup> We will review all such requests on a case-by-case basis and require that the DBS licensee demonstrate to the Commission that it is not technically feasible to serve the States of Alaska and Hawaii. In addition, DBS licensees are on notice that any new satellites they are designing must comply with our geographic service rules.

64. Accordingly, we require a DBS licensee authorized prior to January 19, 1996 seeking to replace or significantly modify its originally authorized space station to serve Alaska and Hawaii, if technically feasible.<sup>238</sup> On appropriate request, we will evaluate on a case-by-case basis the practical and economic implications of service to Alaska and Hawaii for replacement, modification, and extension applications.

65. *Service to Alaska and Hawaii.* Our geographic service obligations require DBS licensees authorized after January 19, 1996 to provide "service" where technically feasible to Alaska and Hawaii upon commencement of operations.<sup>239</sup> In its comments and in several *ex parte* filings, the State of Hawaii, supported by the State of Alaska, urges the Commission to expand the definition of "service" or clarify that the geographic service rules require "full service" to the non-CONUS states.<sup>240</sup> In other filings, Hawaii refers to the need for "comparable service," meaning service that is of equal value to or is comparable to that provided in CONUS states, in terms of antenna size, program offerings, and price. We discuss below each of Hawaii's proposals for a definition of service. We recognize the importance of establishing DBS as a competitor to cable in the multi-channel video programming distribution market in the States of Hawaii and Alaska. In an effort to balance requirements to provide service to all 50 states, and in order to avoid dictating system design or business plans, we decline to specifically define what constitutes full or comparable service although we expect that DBS operators will offer the same level of service to customers throughout all 50 states. We do, however, clarify that DBS operators must offer packages of services in Alaska and Hawaii that are reasonably comparable to what they offer in the contiguous 48 states.<sup>241</sup> We discuss these issues in greater detail below.

66. With regard to defining comparable equipment, and in particular antennas, we note that there are considerable differences within the contiguous United States with regard to receive antenna sizes. While the smallest antennas in use are approximately 18-inches, larger diameter antennas (e.g., 24-inches) are commonly used in areas along both coasts and in higher rain-rate regions.<sup>242</sup> In addition,

<sup>237</sup> See also Reply Comments of DIRECTV at 6; Reply Comments of Primestar at 10; Reply Comments of PanAmSat at 3; Reply Comments of USSB at 3.

<sup>238</sup> See new §25.148(d).

<sup>239</sup> *Id.* See also 47 C.F.R. § 100.53(b).

<sup>240</sup> See Comments of Hawaii and Alaska.

<sup>241</sup> This requirement is subject to the technical feasibility provisions of new §25.148 (c).

<sup>242</sup> The satellite signal suffers attenuation in the presence of rain, particularly at Ku- and Ka-band frequencies where the wavelength of the signal is comparable to the diameter of the raindrop (i.e., 1-2 cm). In areas where the rainfall rates are high (e.g., Florida) larger diameter receive antennas are employed to compensate for this effect.



programming and service options will in part determine the receive earth station antenna size. For example, an antenna designed to see multiple satellites may require a larger surface area,<sup>243</sup> and we expect that the introduction of new services such as two-way Internet will likely further increase the range of available antenna diameters.<sup>244</sup> Consequently, typical equipment parameters for the contiguous United States are neither uniform nor static, and any basis for comparison is difficult to establish.

67. Historically, the primary reason for larger diameter antennas in Hawaii and Alaska has been the great distance between these states and the satellite beam-center.<sup>245</sup> Typically, operators focus their beams, which in turn concentrates their power, over the center of the contiguous United States so that the maximum signal strength is distributed over the largest area of populated land. Received-power levels decrease with distance from the beam center, so that a State such as Hawaii or Alaska, located near the edge of the beam footprint, will receive a significantly lower level of power than a location in the center of the continental United States. However, with the maturation of satellite technology we are seeing increased ability to deliver higher power levels across a large service area. Further, with the advent of spot beam and shaped beam technology,<sup>246</sup> we believe that the ability to deliver increased power levels to more distant geographic regions such as Alaska and Hawaii will continue to improve.

68. Nonetheless, factors such as international pfd limits, rain rates, and elevation angle to the satellite may result in differences in some technical parameters associated with the service provided to different portions of the United States, including Alaska and/or Hawaii. The Commission has recognized in the past that due to various technical limitations not all DBS orbital locations are capable of serving all areas of the United States with the same size receive antenna.<sup>247</sup> Because satellite system resources are intricately related to one another, a single parameter such as antenna diameter cannot simply be mandated without regard to the many factors involved in overall satellite system design.<sup>248</sup> There is insufficient information on the record to justify the Commission mandating DBS system design. Moreover, we are not in a position to predict future technological advances in a still-evolving industry, nor do we believe that this approach is necessarily in the best interest of the U.S. consumer. Such an approach is not consistent with the flexibility that the Commission has afforded DBS service providers in the past. In addition, we note that the Commission has not sought or approved the establishment of a mechanism to monitor and enforce a receive-antenna diameter requirement, even if we chose to adopt such a requirement. Satellite operators do not report the characteristics of DBS receive antennas installed around the country to the Commission. Nor are they required even to apply for separate licenses for receive-only (non-transmitting) DBS antennas. None of the commenters have proposed a workable mechanism by which we might effectively implement and enforce an antenna size requirement. Nonetheless, we

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<sup>243</sup> For example, a subscriber may wish to see multiple satellites in order to receive a particular combination of programming options, or to receive local channels that are carried on a different satellite than the one transmitting the primary programming package.

<sup>244</sup> Both major DBS providers are introducing new two-way Internet access offered in conjunction with their video services.

<sup>245</sup> In Alaska, the ability to deliver higher power level signals is further constrained by the low elevation angles and international power limits in Siberia.

<sup>246</sup> A spot beam is a focused antenna pattern set to cover a limited geographic area.

<sup>247</sup> See *Preemption of Local Zoning Regulation of Satellite Earth Stations*, 11 FCC Rcd 19276, 19295 (1996).

<sup>248</sup> See, e.g. smaller antennas could be made available to consumers but unless other space station parameters were tailored to operate with these smaller diameter antennas, the availability of the signal could be reduced, thereby eroding the quality of service to some customers.

strongly encourage DBS operators to provide comparable DBS service to Alaska and Hawaii in terms of receive earth station antenna size with the rest of the contiguous United States, to the extent technically feasible.

69. Finally, we note that both EchoStar and DIRECTV are now providing service to Hawaii and parts of Alaska with receive antenna diameters under one meter.<sup>249</sup> We believe that market forces provide an incentive for each DBS operator to compete on antenna properties, signal quality and programming options in each geographic market. This competition might lead to improved levels of DBS penetration and service to traditionally underserved areas. With future satellite launch and anticipated improvements in spot-beam technology, transmit power levels and bandwidth efficiency that the level of service to both States might continue to improve. Accordingly, we do not believe that adopting a requirement for equivalent receive antenna size is necessary or likely to be effective to achieve the stated goals of Alaska and Hawaii without unduly burdening the DBS operators at this time.

70. Based on the filings earlier this year, neither DBS provider offers a package of services to Alaska and Hawaii comparable to what the provider offers to CONUS.<sup>250</sup> Alaska and Hawaii ask that we clarify or expand upon our rule stating that "those acquiring DBS authorizations ... must provide service to Alaska and Hawaii where such service is technically feasible"<sup>251</sup> by specifying exactly what "service" DBS providers must offer in these states.<sup>252</sup> Hawaii, for example, asserts that to comply with the Commission's geographic service rules, DBS providers must offer the same "core-CONUS" programming to Hawaiians and Alaskans as is offered to Mainland subscribers. Hawaii urges the Commission to find that marginal niche programming is insufficient and that although the programming does not have to be identical, it must be of equal value to that provided in CONUS.<sup>253</sup>

71. We are concerned that the commenters' proposals could place the Commission in the position of conducting a program-by-program content comparison of service offerings in Alaska and Hawaii and the Mainland, which could have First Amendment implications. Likewise, we will not mandate rules concerning equivalent cost of equipment or service offerings. It is in each DBS operator's best interest to keep the combined cost of equipment and service competitive with the total cost of other MVPD options and affordable to the consumer. We anticipate that competition will help ensure enhanced program offerings and competitive pricing and we expect that that DBS operators will use market considerations to maximize potential revenue given their payload limitations, coverage possibilities from a particular

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<sup>249</sup> In Hawaii, EchoStar is providing service from the 119° W.L. location with a 24-inch receive antenna. A single-antenna option is not yet available for subscriber access to programming packages requiring multiple satellite access. At present, two antennas are required. See Ex Parte Comments of Hawaii at 3. DIRECTV very recently began offering service from its 101° W.L. location with a 29x39-inch oval antenna, and limited programming from its 119° W.L. orbital location with an 18-inch antenna. In parts of Alaska, both EchoStar and DIRECTV offer services with antenna diameter ranging from 30 inches to 70 inches. See Presentation from Tom Brady, DBS Service in Alaska and Hawaii.

<sup>250</sup> Letter from Herb E. Marks, Counsel for the State of Hawaii to Commissioner Kevin J. Martin (dated January 11, 2002).

<sup>251</sup> 47 C.F.R. §100.53(b).

<sup>252</sup> Comments of Hawaii and Alaska.

<sup>253</sup> Comments of Hawaii (April 6 1998); Letter from Herb E. Marks, Counsel for the State of Hawaii and Robert M. Halperin, Counsel for the State of Alaska to Thomas Tycz, Chief, Satellite and Radiocommunications Commission (dated July 14, 2000). See also <http://www.dishnetwork.com>, America's Top 100 is offered in Hawaii (visited April 30, 2001).

location, and the market potential in a specific area. Consumer choice and buying power should provide sufficient motivation for DBS operators to provide a wide array of programming comparable to that available on the Mainland.

72. Nonetheless, we remain concerned that the DBS service available to residents of Alaska and Hawaii is significantly different from that provided in the Mainland 48 states, and we agree that our requirement that DBS providers "provide service to Alaska and Hawaii" must have meaning. We therefore clarify that we will consider a DBS provider to be in compliance with this requirement only if it offers packages of services in Alaska and Hawaii that are reasonably comparable to what the provider offers in the contiguous 48 states.<sup>254</sup>

73. *Off-Shore States Policy.* In response to the *Notice*, the State of Hawaii requested that the Commission consider adopting an "off-shore states" policy when awarding DBS channels at the eastern orbital positions.<sup>255</sup> This policy would require licensees of DBS channels at eastern orbital positions to demonstrate that they have provided service to the States of Alaska and Hawaii before they would be eligible to provide service from any eastern DBS channel assignments beyond their existing assignments.<sup>256</sup> Hawaii argues that the off-shore policy is necessary because the CONUS market will become saturated and leave DBS providers little incentive to expand to Alaska and Hawaii.<sup>257</sup>

74. A majority of industry commenters contend that the off-shore policy suggested by Hawaii is unnecessary and would unduly restrict a "still evolving DBS industry."<sup>258</sup> DIRECTV believes that a "more restrictive 'off-shore states' policy" like that proposed by Hawaii is not the answer to the service problem of getting DBS service to Hawaii because it "may in fact undermine the public interest by placing artificial constraints on DBS service development and expansion."<sup>259</sup> EchoStar opposes requiring DBS licensees to demonstrate service to Alaska and Hawaii before expanding service from their eastern orbital locations because this would prevent DBS operators from providing a full range of cable-competitive programming.<sup>260</sup> EchoStar suggests that if the Commission does establish a rule requiring existing DBS operators to serve Alaska and Hawaii, it urges that it be allowed to do so from either its western or eastern positions.<sup>261</sup> DIRECTV emphasizes that the Commission "must be careful not to adopt inadvertently a requirement that would penalize current DBS systems that use satellites that are not configured technically to provide full Alaska and Hawaii service."<sup>262</sup> Furthermore, DIRECTV encourages

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<sup>254</sup> This requirement is subject to the technical feasibility provisions of new §25.148 (c). Because of the additional guidance regarding compliance with our rule set out in this Order, DBS providers will not be subject to liability in any possible enforcement action until 60 days after this guidance is published in the Federal Register.

<sup>255</sup> Comments of Hawaii at 4. See also *DBS Auction Order* at n. 80.

<sup>256</sup> Comments of Hawaii at 4. See also *DBS Auction Order*.

<sup>257</sup> Comments of Hawaii at 4.

<sup>258</sup> Reply Comments of EchoStar at 10; Reply Comments of Primestar at 9.

<sup>259</sup> Reply Comments of DIRECTV at 5.

<sup>260</sup> Comments of EchoStar at 11-12.

<sup>261</sup> *Id.* at 11.

<sup>262</sup> Reply Comments of DIRECTV at 5.

the Commission to take into account the technical limitations at each location when adopting rules affecting eastern orbital locations.<sup>263</sup>

75. The main purpose of the proposed off-shore policy would be to provide service to Alaska and Hawaii using the eastern orbital locations. Because both major DBS licensees are providing service to the States of Hawaii and Alaska, we find that the underlying policy objectives of Hawaii's proposal are met by our existing geographic service rules, as modified in this order, and that it is unnecessary to adopt any further requirements. In addition, all of the eastern channels have been assigned with the exception of two channels at the 61.5° W.L. orbital location and those channels cannot serve Alaska and Hawaii due to elevation angle constraints (*i.e.* beyond the line of sight).

76. *Service to Puerto Rico and the Virgin Islands.* Our current geographic service requirements apply only to Alaska and Hawaii.<sup>264</sup> The Notice sought comment on whether it was necessary to adopt similar measures in order to promote service to Puerto Rico and other U.S. territories and possessions.<sup>265</sup> DIRECTV and Loral state that, while service to Puerto Rico and the U.S. Virgin Islands is a very important goal, they believe that rules requiring service are unnecessary because providers will naturally look to new markets to expand.<sup>266</sup> Echostar argues that with the currently available technology, further expansion of the DBS geographic service requirements could in fact result in deterioration of service to Alaska and Hawaii.<sup>267</sup> Echostar states that the Commission should take into account the inherent technical limitations of current geostationary satellites, which allow service to geographic regions of a finite size and that these features generally permit currently available satellites to provide optimized service either to Puerto Rico or to Alaska and Hawaii – but not both.<sup>268</sup> In the event that the Commission adopts service rules for Puerto Rico, DIRECTV strongly urges the Commission to apply them only to new DBS permittees or licensees where such service is technically feasible.<sup>269</sup> Puerto Rico did not file comments in this proceeding.<sup>270</sup>

77. Unlike Alaska and Hawaii, Puerto Rico is located relatively close to the contiguous United States. Based strictly on line-of-sight considerations, it is reasonable to conclude that some level of service to Puerto Rico should be possible from the three CONUS and the eastern orbital locations, *i.e.*, 61.5° W.L. 101° W.L., 110° W.L. and 119° W.L.<sup>271</sup> Moreover, two U.S. orbital locations (101° W.L.

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<sup>263</sup> *Id.* at 7.

<sup>264</sup> See DBS Auction Order at ¶ 125. Notice at ¶ 34.

<sup>265</sup> Notice at ¶ 34.

<sup>266</sup> Comments of DIRECTV at 19; Reply Comments of DIRECTV at 7; See also Comments of Loral at 4. Loral urges the Commission to continue to permit each DBS operator to use its discretion to develop its DBS assets as the market will permit.

<sup>267</sup> See Ex Parte Comments of EchoStar.

<sup>268</sup> *Id.* at 1.

<sup>269</sup> Comments of DIRECTV at 20.

<sup>270</sup> The Commission received several emails from residents of Puerto Rico (*e.g.*, Raoul Le Hardy, Mercedita, PR; Luis Torres, Toa Baja, PR; Luis F. Jimenez, Arecibo, PR; and Mr. Hernandez, Rio Piedras, PR) requesting that we take action to promote increased DBS service to the region. See Memorandum of Federal Communications Commission, International Bureau, from Chris Murphy (filed on April 21, 1998).

<sup>271</sup> Puerto Rico and the Virgin Islands can receive signals from satellites at the 61.5° W.L. and 101° W.L. locations at elevation angles well in excess of 10°, the minimum necessary for DBS service. See *supra*. An earth (continued....)

and 110° W.L.) have beams in the Region 2 BSS and feeder-link Plans intended for the provision of service to Puerto Rico and the U.S. Virgin Islands.<sup>272</sup>

78. The BSS Plan beam characteristics, however, were established based upon the technical data of Annex 5 to Appendix 30, and assume a receive earth station antenna diameter of approximately 1 meter,<sup>273</sup> considerably larger than the 45 cm dishes routinely available to CONUS customers. Smaller receive earth stations can be used if the transmit power from the satellite is increased,<sup>274</sup> but this approach is not necessarily feasible in the Caribbean region. Due to its relatively small geographic area and close proximity to neighboring Caribbean countries, it is not possible to serve Puerto Rico without illuminating the territories of nearby Administrations. The International Radio Regulations have provisions designed to protect both the BSS Plan assignments and terrestrial systems of neighboring Caribbean countries from interference that might result from modifications to the Region 2 BSS and feeder-link Plans.<sup>275</sup> These provisions limit the amount of power that a U.S. DBS system can provide to serve Puerto Rico, and in particular constrain their ability to provide service at power levels comparable to those used over CONUS.<sup>276</sup> Finally, we recognize that Puerto Rico is located in an ITU-defined rain climactic zone that has some of the world's highest rainfall rates.<sup>277</sup> High rainfall rates further hamper DBS service and the degree of rain attenuation experienced in Puerto Rico hinders use of receive-antenna diameters comparable to those used in CONUS.<sup>278</sup>

79. In order to comply with the Commission's requirement to serve Alaska and Hawaii, DBS licensees have had to modify the beam characteristics specified in the Appendices 30 and 30A BSS and

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station located in Puerto Rico (18° N, 66° W) can see satellites located at 61.5° W.L. and 101° W.L. at elevation angles of 68.25° and 45.0°, respectively. The elevation angles from 110° W.L. and 119° W.L. are 36° and 27° respectively.

<sup>272</sup> See the Region 2 BSS and feeder-link Plans, contained in Article 10 of Appendix 30 and Article 9 of Appendix 30A.

<sup>273</sup> See Section 3.7.1 of Annex 5 to Appendix 30. The Region 2 BSS Plan assumes an antenna half-power beamwidth of 1.7°. For a circular antenna operating at 12.45 GHz, with a 55% efficiency factor, this translates to an antenna diameter of 0.99 meters.

<sup>274</sup> A decrease in receive-antenna diameter from 1 meter to 60 cm results in a 4.4 dB gain reduction, while a decrease in receive-antenna diameter from 1 meter to 45 cm results in a 6.9 dB gain reduction. To achieve comparable signal reception, the radio frequency power at the output of the satellite antenna must be increased by an equivalent amount.

<sup>275</sup> See Annex 1 to Appendix 30. If the limits in Annex 1 to Appendix 30 are exceeded by a proposed modification to the Region 2 BSS Plan, then the agreement of the affected Administration must be obtained.

<sup>276</sup> For example, Section 4 of Annex 5 to Appendix 30 limits the increase in power flux-density arriving on any part of the territory of an Administration to no more than 0.25 dB over that resulting from the original plan assignment. For a 1 meter receive antenna, such a pfd increase permits a maximum reduction in diameter of approximately 3 cm (1 inch). This analysis is a best-case scenario, and does not consider other possible limiting factors such as relatively low carrier-to-interference ratios (*i.e.*, interference limited case).

<sup>277</sup> See Section 2.2.2 of Annex 5 to Appendix 30. The ITU determines the rainfall intensity (exceeded for 0.01% of an average year) to be 95 mm/hr in Puerto Rico. At an elevation angle of 30°, this introduces approximately 4.5 dB of signal attenuation.

<sup>278</sup> Rainfall rates in Puerto Rico are equal to or greater than to those in South Florida. San Juan has an average rainfall rate of 84 inches per year, Miami receives an average of 55 inches per year.

feeder-link Plans.<sup>279</sup> As EchoStar points out, these modified systems have been optimized to provide service to CONUS, Alaska and Hawaii.<sup>280</sup> To increase power levels available over the Caribbean, transmit power must necessarily be diverted from other regions, *i.e.*, CONUS and/or Alaska and Hawaii. Transmit power is a limited on-board resource and is typically constrained by the level of technology available when the satellite is built.<sup>281</sup> EchoStar asserts that providing such broad DBS coverage using currently available technology is highly problematic, even with vastly more costly satellites incorporating higher transmit power levels, larger solar arrays and optimally designed antennas, although it provides no specific support for this assertion.<sup>282</sup> Further, we cannot discount the possibility of providing such extended coverage in the future as satellite technology continues to evolve.

80. Alaska, Hawaii and Puerto Rico are at the geographic extremes of the service area defined by the satellite antenna coverage patterns. While it may be possible to provide simultaneous service to all three regions, we recognize that there are technical and economic trade-offs that could significantly impact current service to existing customers. It may not be economically reasonable or technically possible for DBS providers to serve all three areas without service deterioration to existing subscribers. At this time, we do not have sufficient evidence in the record to determine to what extent it is technically and economically feasible to provide service simultaneously to Alaska, Hawaii and to Puerto Rico and other U.S. territories in the Caribbean. We are, however, concerned that adopting rules requiring DBS providers to provide such Caribbean service could adversely affect the provision of DBS service to Alaska and Hawaii. At the present time, EchoStar is providing some service to Puerto Rico from its Echo-V satellite at 110° W.L. and the Echo-VI satellites at 119° W.L.<sup>283</sup> EchoStar points out, however, that its satellites are designed and operated to optimize DBS service in CONUS, Alaska and Hawaii. In addition, Puerto Rico is currently receiving other satellite delivered video programming. Galaxy Latin American DIRECTV<sup>284</sup> currently provides DTH service to Puerto Rico and other providers offer conventional C/Ku-band DTH programming packages as well.<sup>285</sup> Because Puerto Rico is currently receiving both DBS and DTH-FSS service, the situation is quite different from that of Hawaii and Alaska in 1995 when the Commission adopted geographic service requirements when no service was provided to either State.<sup>286</sup> DBS and DTH video service is now, and we believe will continue to be, provided to Puerto Rico and other U.S. territories without further Commission rules. Puerto Rico's estimated

<sup>279</sup> See, e.g., DIRECTV Application for Authority to Launch and Operate a Replacement Direct Broadcast Satellite Service Space Station, SAT-LOA-1990331-00035 (filed March 31, 1999).

<sup>280</sup> See Ex Parte Comments of EchoStar at 2 (dated March 14, 2001) ("*Ex Parte Comments of EchoStar*"). Due to the resulting limited power of the satellites, subscriber antennas required in Puerto Rico range from 1.2 to 2.4 meters, although typically a 1.8 meter antenna is adequate.

<sup>281</sup> Among other factors, the levels of radiated power are influenced by the size and efficiency of the solar array panels, the power of the final amplifier stages and the gain and size of the transmit antennas.

<sup>282</sup> See Ex Parte Comments of EchoStar at 2.

<sup>283</sup> See <http://www.dishnetwork.com> (visited March 15, 2001).

<sup>284</sup> *Sky Report* (July 23, 1999) <[http://www.skyreport.com/skyreport/dth\\_hist.htm#1999](http://www.skyreport.com/skyreport/dth_hist.htm#1999). Latin America DIRECTV service is available in various Caribbean island nations via Galaxy satellites at 95° W.L. See also 1999 PR Newswire Association, Inc. (July 29, 1999).

<sup>285</sup> See <http://www.carneri.com>; <http://www.coqui.net/nzsatser>; and <http://www.4dtv.com>.

<sup>286</sup> See *DBS Auction Order* at ¶125.

population is 3,889,507 and is a potentially large customer base for DBS providers.<sup>287</sup> We believe that as a result of market forces, DBS providers will continue to expand their subscriber bases and that providers recognize Puerto Rico as an important market to serve.

81. Although some level of service to Puerto Rico and the U.S. Virgin Islands should be possible from the CONUS and eastern orbital locations (*i.e.*, 119° W.L., 110° W.L., 101° W.L. and 61.5° W.L.) the ability to serve Puerto Rico will be greatly limited by the factors discussed above. In light of the range of technical, regulatory and cost factors that constrain their ability to offer DBS service to the Caribbean region, we believe that satellite operators are in the best position to evaluate and choose among the many inter-dependent design/cost trade-off options. We also believe that operators should be permitted maximum flexibility to determine satellite design and resulting level of service that can realistically be provided.

82. *Deletion of 100.53(a).* In the *Notice* the Commission proposed to eliminate Section 100.53(a) of the Commission's rules, which requires licensees to relinquish their western channels if they do not provide service to Alaska or Hawaii before the end of their current authorizations.<sup>288</sup> The Commission concluded that Section 100.53(a) is unclear and potentially runs counter to the Commission's purposes.<sup>289</sup> The *Notice* stated that this Section could easily be misinterpreted as permitting DBS licensees with eastern orbital locations to maintain their authorizations at western orbital locations, even if they do not provide service from such western channels. The intent of Section 100.53 was to ensure that DBS licensees provide service to Alaska and Hawaii, where it is technically feasible for them to do so.<sup>290</sup> As stated in the *Notice*, Section 100.53(a) can be interpreted many ways that undermine the goals of Section 100.53. A licensee that is operating from an eastern orbital location could interpret section 100.53(a) to permit warehousing of western channels. Under another interpretation of Section 100.53(a), an entity holding authorizations for both eastern and western channels might argue that its western channel authorization would remain valid during its ten-year license term for its eastern channels even if it were not using its western channels. Its argument might be that, pursuant to Section 100.53(a), it would not need to relinquish its western channels unless and until its ten-year license expired and it had not provided service to Alaska and Hawaii. If a licensee originally received authorization for eastern and western channels at the same time, such a licensee could, under this interpretation argue that it could maintain its authorization for its western channels for up to 16 years, 6 years to launch and operate its satellite at its eastern channels plus the ten-year operating license term, even if during such time it never used its western channels.<sup>291</sup>

83. We believe that Section 100.53(a) of the Commission's rules adds little to our underlying policy objective to encourage service to Alaska and Hawaii and furthermore, that it may be unclear and confusing. As described extensively in the *Notice*, the rule can be misinterpreted.<sup>292</sup> More importantly, we find that Section 100.53(a) is unnecessary in light of the fact that it is based on the prior east/west orbital location channel pairing policy that the Commission eliminated in the *DBS Auction Order*.<sup>293</sup> The

<sup>287</sup> See <http://www.consensus.gov/population/estimates/puerto-rico>.

<sup>288</sup> *Notice* at ¶ 35.

<sup>289</sup> *Id.* at ¶ 36.

<sup>290</sup> *Id.*

<sup>291</sup> *Id.*

<sup>292</sup> *Id.*

<sup>293</sup> *DBS Auction Order* at ¶ 124.

consumers can receive the maximum service from any one orbital location and that DBS consumers need not choose DBS providers at an orbital location on the basis of equipment pricing or technological barriers.<sup>321</sup>

94. Because most DBS operators are already providing service and their equipment designs are in place, we will not mandate interoperable equipment at this late stage. We recognize that it would be a great financial burden for manufacturers to redesign equipment to make DBS receivers interoperable. Moreover, by allowing flexibility in the design of DBS equipment we will encourage innovative design and advancements in technology.<sup>322</sup>

#### B. Competitive Bidding

95. The *Notice* proposed to eliminate the DBS specific competitive bidding rules in Part 100 and rely on the general competitive bidding rules in Part 1 of the Commission's rules.<sup>323</sup> The *Notice* also sought comment on whether DBS has service-specific issues that warrant the establishment of any rules different from the general competitive bidding rules. Specifically, the Commission proposed moving Section 100.71,<sup>324</sup> which establishes the auction authority for DBS, to Part 25 and create a new Section 25.148(d) of the Commission's rules.<sup>325</sup>

96. The *Notice* also sought comment on whether any differences in the DBS auction rules should be maintained. There are two service-specific rules that differ from the general auction rules, the transfer disclosure requirement and the long form provision. Generally, commenters do not support the Commission's proposal to eliminate the DBS-specific auction rules<sup>326</sup> stating that the general competitive bidding rules are a broad-brush approach that might not capture all the unique characteristics of the DBS service.<sup>327</sup>

97. Since the adoption of the *Part 100 Notice*, the Commission adopted the *Part 1 Fifth Report and Order*<sup>328</sup> clarifying and amending the general competitive bidding rules.<sup>329</sup> In this Order, the

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<sup>321</sup> Reply Comments of USSB at 4.

<sup>322</sup> See *Implementation of Section 304 of the Telecommunication Act of 1996, Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775 (1998) at ¶¶ 22, 64-66 (Section 629 (47 U.S.C. §549), concerning commercial availability of navigation devices, applies to MVPDs including DBS, and the rules recognize "that DBS reception equipment is already nationally portable and commercially available").

<sup>323</sup> *Notice* at ¶ 37.

<sup>324</sup> 47 C.F.R. § 100.71 states that "[T]he general competitive bidding procedures found in part 1, subpart Q of this chapter, will apply unless otherwise provided in this part."

<sup>325</sup> *Notice* at ¶ 38. See new § 25.148(d).

<sup>326</sup> See Comments of DIRECTV at 21; Comments of EchoStar at 8; Comments of PanAmSat at 4; Comments of USSB at 4-5.

<sup>327</sup> Comments of EchoStar at 8 and Comments of DIRECTV at 21. See also Comments of USSB at 4-5 (USSB argued that the decision to select licensees through auction should be "reconsidered and discontinued"). These comments were outside the scope of the *Part 100 Notice* and will not be considered as part of this proceeding.

<sup>328</sup> See *Amendment of Part 1 of the Commission's Rules — Competitive Bidding Procedures*, Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making, 15 FCC Rcd 15293 at ¶ 78 (2000) (modified by Erratum, DA 00-2475 (rel. Nov. 3, 2000)) ("*Part 1 Fifth Report and Order*") (recons. pending).



85. We will not adopt geographic service rules for DTH-FSS providers that serve the contiguous United States. Although we strongly encourage all DTH-FSS providers that have a footprint on the States of Alaska and Hawaii and Puerto Rico to provide service to these areas, we believe it would be inadvisable to require them to do so. FSS licensees typically lease transponder capacity to a DTH video service provider that in turn offers service to subscribers. Requiring the lessor to impose geographic service obligations on the lessee could pose significant regulatory difficulties. Further, the Commission cannot mandate the existence of a DTH-FSS service provider in a given geographic area, nor can we force the FSS operator to lease capacity to any particular service provider (e.g., a provider serving subscribers in Alaska). Additionally, we have already licensed significant numbers of C- and Ku-band FSS satellites<sup>302</sup> and the majority of these satellites are now in operation. Some Ka-band FSS satellites are in advanced stages of design as prescribed by the Commission's milestone requirements.<sup>303</sup> To now impose a requirement to serve Alaska and Hawaii would be impractical.

86. Today's C- and Ku-band satellites provide a wide range of services, with DTH comprising only a small portion of transponder traffic.<sup>304</sup> Typically C- and Ku-band DTH-FSS satellites are meeting specialized programming needs (e.g., foreign language programming) and satisfying other niche-markets. In some traditionally under served markets, DTH-FSS remains a realistic alternative to cable service.<sup>305</sup> We believe that, in light of the relatively small portion of transponder capacity devoted to DTH-FSS services, imposing geographic service requirements could create a situation where it is no longer cost-effective for operators to offer such services. Rather than advancing our goal of increasing service options to underserved markets, such a policy could ultimately hinder it.

87. In addition, the BSS and FSS have very different regulatory and operating environments. The service area and other operating parameters of DTH-FSS satellites are not pre-determined by international plan, but rather are designed uniquely for each satellite by its operator. The ability to ultimately operate the satellite with the parameters reflected in the initial ITU filing depends largely on the outcome of the coordination process with other Administrations. This FSS coordination process can take many years to complete, is often highly complex, and its outcome cannot be fully predicted. These factors make it virtually impossible for the Commission to make an advance determination regarding the technical feasibility of serving Alaska and Hawaii with an FSS network. Once complete, the terms of the coordination agreements are proprietary. Forcing the FSS licensee to publicly reveal the terms of a coordination agreement in a technical showing to the Commission could place them at a competitive disadvantage. Moreover, with regard to non-U.S. licensed FSS satellites, the Commission will not have

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operator would either have to make all transponders capable of serving Alaska and Hawaii regardless of the costs involved or deny transponders owners/lessees the right to use the transponders for DTH service.

<sup>302</sup> See *In the Matter of Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, In the Matter of the Applications of American Telephone and Telegraph Company, EchoStar Satellite Company, GE American Communications, Hughes Communications Galaxy, Inc. Loral Space and Communications Ltd., Orion Network Systems, Inc.*, 11 FCC Rcd 13788 (1996).

<sup>303</sup> See, e.g., Letter from Peter A. Rohrbach, Counsel for ASTROLINK International LLC, to Ms. Fern Jarmulnek, Deputy Chief, Satellite Division (dated April 10, 2002).

<sup>304</sup> DTH-FSS systems require a much larger diameter antenna than DBS systems due to the constraints of operating in a 2-degree spacing environment. Antenna diameter is a key marketing element, and DTH-FSS systems have not been able to attract a customer base comparable to that of DBS systems that operate with much smaller diameter antennas in a 9-degree or better orbital spacing environment.

<sup>305</sup> For example, Puerto Rico is receiving DTH-FSS service from DIRECTV Latin America via the FSS Galaxy VIII-i satellite at 95° W.L. orbit location

Mexico and Argentina to permit DBS and DTH service to each other's territories.<sup>313</sup> Additionally, the United States could potentially negotiate mutual, market access agreements with other nations in the future. Therefore, we anticipate that Mexico and Argentina as well as other non-U.S. licensed satellites, could provide DBS service to U.S. consumers. Given these considerations, the *Notice* asked whether there are additional steps the Commission should take to ensure delivery of service to Alaska and Hawaii.<sup>314</sup> In response, Hawaii urges the Commission to apply its geographic coverage rules to foreign-licensed DBS satellites providing services to the United States.<sup>315</sup> Hawaii emphasizes that foreign-licensed DBS satellites may provide the only near term option for DBS service to Hawaii.<sup>316</sup>

91. Under the *DISCO II* decision, we will impose the same service obligations on operators of non-U.S.-licensed satellites that provide DBS service in the United States as we impose on U.S.-licensed operators.<sup>317</sup> In *DISCO II* we stated that:

We will require non-U.S. satellite operators to comply with all Commission rules applicable to U.S. satellite operators. To do otherwise would place U.S. and foreign operators on uneven competitive footing when providing identical satellite service in the United States and would defeat our public policy objectives in adopting these service rules in the first place.<sup>318</sup>

92. Non-U.S.-licensed DBS operators will have the burden of showing that serving Alaska and Hawaii is technically infeasible. We will not however, impose geographic service obligations on non-U.S.-licensed FSS providers of DTH service because U.S. FSS licensees are not so obligated. We conclude that if non-U.S.-licensed satellites are not subject to the same requirements, they will have an unfair competitive advantage over domestic licensees.

93. *Interoperable Design.* USSB and Microcom express concern that consumers should not be required to buy or lease two or more devices in order to receive DBS signals from the same orbital location.<sup>319</sup> USSB and Microcom recommend that the Commission require DBS licensees located at the same orbital locations to coordinate the development of their systems, as USSB and DIRECTV have done.<sup>320</sup> They argue that adoption of an interoperable equipment policy would make certain that DBS

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circumstances specified in an annex to GATS. See GATS Annex on Article II Exemptions. The United States has taken such exceptions with respect to DBS, DTH, and Digital Audio Radio Services (DARS).

<sup>313</sup> See *Protocol Concerning the Transmission and Reception of Signals from Satellites for the Provision of Direct-to-Home Satellite Services in the United States of America and United Mexican States* (November 8, 1996), Article VI ("Mexican Protocol"). See also *Protocol Concerning the Transmission and Reception of Signals from Satellites for the Provision of Direct-to-Home Satellite Services and Fixed-Satellite Services in the United States of America and the Argentine Republic*, June 5, 1998 ("Argentine Protocol").

<sup>314</sup> *Notice* at ¶ 34.

<sup>315</sup> Ex Parte Comments of Hawaii at 2.

<sup>316</sup> *Id.*

<sup>317</sup> In addition, the Commission has required non-U.S.-licensed satellites that provide service into the United States to comply with the same public interest obligations that we impose on U.S.-licensed operators. See *DBS Public Interest Obligation Order*.

<sup>318</sup> *DISCO II* at ¶ 173.

<sup>319</sup> Reply Comments of USSB at 3; Comments of Microcom at 5.

<sup>320</sup> Reply Comments of USSB at 3; Comments of Microcom at 5.